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MANCHESTER MEDICAL SOCIETY

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AND

REVIEW.

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CONTENTS

OF

VOLUME XVI.

PART I.

ORIGINAL COMMUNICATIONS.

PAGE

1. An Essay on the Causes of Death in Confluent Small-Pox, with Practical Reflections. By George Gregory, M.D. - - - - - - 1
2. Case of Retroversio Uteri, attended with some particular Circumstances. By William Bartlett, Surgeon - 9
3. Case of Rheumatic Metastasis to a Vital Part. By Edward Thompson, Surgeon - - - - 12
4. Case of Injury from a Fall, in which the Symptoms of Compression and Concussion of the Brain were both present. By C. Heineken, Surgeon - - 15
5. Sketch of two Cases of Purpura Hæmorrhagica, treated successfully by Oil of Turpentine. By Whitlock Nicholl, M.D. - - - - - 18
6. Two Cases of Pthisis Pulmonalis; one the consequence of Peripneumonia, in which very large Doses of Digitalis proved signally successful. By W. Wansbrough, Fulham - - - - - - 20
7. On Inflammation. By Whitlock Nicholl, M.D. - 89
8. Obstetrical Researches. By Maurice Onslow, M.D. - 99

PAGE

9. Description of an Instrument for counteracting Morbid Contractions of the Flexor Muscles of the Leg. By W. Gaitskell, Surgeon - - - - 102
10. An Essay on the Causes of Death in Confluent Small-Pox, and Practical Reflections on the Treatment of that Disease. By G. Gregory, M.D. - - - 104
11. A Case of Empyema, whereby the entire Lungs of the left Side were destroyed; with Inflammation of the Heart, and Suppuration of the Pericardium. By Henry Robertson, M.D. - - - - - 110
12. Some Remarks on Dr. Copland's Paper on Chronic Inflammation of the Peritoneum. By John Fosbrooke, Surgeon - - - - - - 177
13. Reply to Ignotus on the Medical Profession. By Nectemere - - - - - - 186
14. Observations on Practical Pathology, (No. 2.)—Case of Organic Amaurosis, complicated with Phthisis Pulmonalis, Disorganization of the Spleen, and the Phenomena of Meningeal Apoplexy; with Notes of the Dissection. By James Kennedy, M.D. - - - - 191
15. Observations on the Use of the different Preparations of Iodine as a Remedy for Bronchocele and in the Treatment of Scrofula. By Sir A. Halliday, M.D. - 199
16. Case of Abscess of the Spleen communicating with the Stomach and Umbilicus. By H. H. Hickman, Surgeon 202
17. Hypochondriasis. By H. Perry - - - 203
18. On a Mode of pursuing Anatomical Studies in the Country. By J. Higginbottom, Surgeon - - - 204
19. A Case of Obstinate Constipation of the Bowels, relieved by an Injection of Spirit of Turpentine. By R. Williams, Surgeon - - - - - 206
20. Cases in Medicine, with Pathological and Practical Reflections. By G. Gregory, M.D. - - - 265
21. Obstetrical Researches. By Maurice Onslow, M.D. (No. 7.) - - - - - - 271

PAGE

22. A remarkable Case of Tetanus, which terminated fatally; with an Account of Post Mortem Appearances. By W. Wansbrough, Surgeon - - - - 277
23. Case of Wound in the Abdomen. By J. F. Hulbert - 283
24. Cases proving the Efficacy of the Colchicum Seed Wine in Gout. By a Correspondent - - - 288
25. Observations on the Autumnal Bilious Epidemic of 1821. By G. Gregory, M.D. - - - - 353
26. Observations on the Fevers as they appeared in the Flag-Ship and Childers in the West Indies, tending to prove that they arose from different Causes, and are not of the same Family or Species. By Thomas Brawn, Surgeon - - - - - - 360
27. On the Croton Oil. By H. Perry - - - 374
28. Case of Sanguineous Tumour. By J. G. Merveilleux, Surgeon - - - - - - 375
29. On the Administration of large Doses of Gamboge. By Edward Thompson, Surgeon - - - 376
30. Case of Strangulated Hernia, attended with some uncommon Circumstances. By C. Aldworth, Surgeon - 377
31. Observations on Practical Pathology, (No. 3.)—Case of Chronic Visceral Inflammation, accompanied by Anomalous Symptoms; with Appearances on Dissection. By James Kennedy, M.D. - - - - 380
32. An Account of a Lusus Naturæ, which was seen in China. By —— Mitchel, M.D. - - - - 441
33. On a New Preparation of Bark. By J. Morson, Chemist 447
34. On Iodine. By T. M. W. - - - - 449
35. A Case of Apoplexy, in which the Oil of Croton was given with apparent Advantage - - - 451
36. A Case of Labour, in which the Placenta was expelled before the Child. By H. W. Bailey, Surgeon - 453
37. Observations relative to Obstructions in the Small Intestines. By T. Stokes, Surgeon - - - 454
38. Medical Cases and Observations. By R. Sutleffe - 456

DEPARTMENT OF NATURAL HISTORY.

Monthly Calendar of Natural History, by Dr. T. Forster, PAGE

For July - - 25
August - - 115
September - - 209
October - - 292
November - - 391
December - - 460

PART II.

ANALYTICAL REVIEW.

1. *Elliotson* and *Granville* on Prussic Acid - - - 27
2. *Vetch*, *Travers*, and *Weller*, on Diseases of the Eye - 43
3. *Ramsbotham* on Midwifery - - - - 117
4. *Philip* on Indigestion - - - - - 126
5. *Plumbe* on Ring-worm, &c. - - - - 132
6. *Smith* on Forensic Medicine - - - - 211
7. *Vandenzande* on Puerperal Fever - - - 234
8. *Reid* on Hypochondriasis - - - - 293
9. *Reeder* on Diseases of the Heart - - - 297
10. Pamphlets on Medical Reform - - - - 311
11. *Hancock* on Pestilence - - - - 392
12. *Stevenson* on Amaurosis - - - - 410
13. *Bichat* on Mucous Membranes - - - 462
14. *O'Halloran* on the Andalusia Fever - - 474
15. *Syder's* Medical Examinations - - - 481
16. *Willan's* Miscellaneous Works - - - 482
17. *Hare* on the Stomach, &c. - - - 491

PART III.

SELECTIONS.

1. *Hastings* on Dividing the 8th Pair of Nerves - - 63
2. *Livingstone's* Account of a Lusus Naturæ - - 138
3. *Home* on the Black Rete Mucosum of the Negro - 243
4. Contribution to the History of Electricity - - 325

PAGE

5. Observations on Sir E. Home's Paper on the Black Rete Mucosum of the Negro - - - - 327
6. *Philip* on the 8th Pair of Nerves - - - 415
7. *Dalton* on Spring and Mineral Waters - - - 498

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

Portal on Enteritic Inflammations - - - - 69
Delourde on Apoplexy - - - - - 75
On the Medical Character of the United States - - 142
Werneck on Hospital Gangrene - - - - 246
On Poison from Smoked Sausages - - - - 248
Disease of the Right Vas Deferens - - - - 329
Abdominal Hæmorrhage - - - - - 332
Carotid Aneurism - - - - - - 333
Chemical Examination of the Human Teeth - - - 336
New Extract of Opium - - - - - 337
Softening of the Brain - - - - - ib.
Inflammation of the Heart - - - - - 343
Harlan on Animal Heat - - - - - 418
Koecker on the Devastation of the Gums - - - 499

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

Philips on the Analysis of Verdigris - - - - 77
Prout on Mortality from Lithotomy - - - - 78
Yelloly on the same - - - - - - 151
Analysis of Indian Corn - - - - - 79
Report of the National Vaccine Establishment - - ib.
Account of the Medical Benevolent Society - - - 81
Fosbrooke on Vaccination - - - - - 82
Greening's Report of the City of London Lying-in Charity 82, 253
Literary Notices - - - - - 83, 263, 352, 528
Notices of Lectures - - - - ib. 261, 352, 526
Meteorological Tables kept at Richmond 84, 172, 256, 348, 436, 523
Meteorological Tables for London - 85, 173, 257, 349, 437, 524

PAGE

Monthly Register of Diseases and Observations 86, 174, 258, 350, 438, 525

Monthly Catalogue of Books - - 88, 176, 261, 351, 440, 528

Notices to Correspondents - - ib. 176, 264, 352, ib. ib.

Correspondence respecting the Apothecaries' Act - - 152, 427

Sir William Adams' Claims - - - - - 166

Report of the Associated Apothecaries and Surgeon-Apothecaries of England and Wales - - - - 169

Report of the Phrenological Society of Edinburgh - - 170

Broughton in reply to Hastings - - - - 253

Cathartine the Active Principle of Senna - - - 254

Piperin the Active Principle of Pepper - - - ib.

Medical and Physiological Prize Questions - - - 255

London Medical Society - - - - - 347

Medico-Chirurgical Society of Edinburgh - - - ib.

Society of Sciences and Arts at Utrecht - - - ib.

On Hartshorn in Intoxication - - - - ib.

Scarlet Fever - - - - - - ib.

Letter from Mr. Ring respecting Dr. Walker - - 428, 514

Letter from Mr. Wood - - - - - 430, 515

Process for Extracting Cinchonin from Cinchona - - 431

Description of a New Balance - - - - ib.

Analysis of the Sulphates of Cinchonin - - - 432

Purification of the Inferior Brazil Woods - - - ib.

Fish Flour - - - - - - - 433

On Nitrate of Silver in Medicine - - - - ib.

Phosphorescence of Wounds - - - - 434

Effects of Copper on Vegetation - - - - ib.

Brugnatelli on a New Salifiable Base - - - ib.

Memoir of the late Dr. Rigby - - - - 508

Memoir of the late Mr. Wilson - - - - 512

Letter from Mr. Dennis - - - - - 517

List of Apothecaries admitted since August, 1820 - - 518

Society of Practical Medicine - - - - 521

THE

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No. 91. JULY 1, 1821. Vol. XVI.

PART I.

ORIGINAL COMMUNICATIONS.

I.

An Essay on the Causes of Death in Confluent Small-Pox, with Practical Reflections on the Treatment of that Disease.

By George Gregory, M.D., Senior Physician of the St. George's and St. James's General Dispensary.

We need only refer to the two last official reports from the Vaccine Board to the House of Commons, to be satisfied to what a lamentable extent small-pox is now prevailing in this country. In the metropolis it not only exists to a great degree, but it is actually on the increase. In 1818, the bills of mortality report 421 persons to have died of small-pox. In 1819, the number of deaths increased to 712; and in the later report of the Vaccine Board, we read that "not less than 792 persons died of that distemper, within the bills of mortality, in the course of the last year." In their former report, the National Vaccine Establishment took notice of the "great ravages" committed by small-pox in many other cities, and in many parts of the country; and there is no reason to think they have at all diminished during the last year. Whether this melancholy fact is to be attributed, as some would have us believe, in a great degree to the prejudices and follies of the people, or whether there is any thing in the nature of small-pox, and the laws of its contagion, which contributes to it, it is not my present object to inquire. Neither have I any intention (at present) of discussing the question, whether the complete extermination of the disease may or may not be anticipated. It is sufficient

for my purpose to say, that for very many years to come, there is not the least chance of it. The statements which I have brought forward, are indeed pregnant with important lessons; and it is not among the least of these, that I would place the necessity which they entail upon us of paying the utmost attention to small-pox, and the obvious impropriety of neglecting it as though it were a rare and forgotten disease. It is plainly the bounden duty of the members of the medical Profession, to take the world as they find it; and since experience teaches that the small-pox cannot be prevented, to direct their inquiries as to the means of lessening, as far as possible, its virulence. These considerations must plead my excuse for laying before the readers of the "REPOSITORY," some remarks on the pathology and treatment of small-pox.

Sydenham, and the physicians who immediately succeeded him, were very successful in their researches into the phenomena of small-pox; and probably the *treatment* of confluent small-pox was never better understood than in their days. It requires great attention to points of minute detail, which can hardly be taught except by *clinical* observation; but there are, at the same time, certain *general principles* which may serve to regulate our views concerning it, which it will be my object in the present essay to illustrate. In these I am far from saying there is any degree of novelty. I believe the whole of them may be found in Sydenham, and other old authors; but the language in which their opinions are clothed is hardly intelligible to the Students of the present day, and I have therefore thought it might be advantageous to place them in as clear a point of view as possible, chiefly for the benefit of those younger Practitioners who have not had many opportunities of seeing the disease. My own experience has been chiefly obtained in the course of a pretty long attendance at the Small-Pox Hospital; for which I am indebted to the liberality and friendship of Dr. Ashburner, and his predecessor, Dr. Adams.

It appears to me that to understand fully the principles upon which the treatment of small-pox is to be conducted, it is necessary to inquire, with some minuteness, into the immediate causes of death in this disease, on which subject a variety of opinions have prevailed at different times. It will be seen, by reference to old authors, that death was by some attributed to "violent commotions in the blood,"—or, in modern language, to the violence of febrile excitement; and by others, to extreme debility. Some later pathologists have confidently stated, that bronchial inflammation was the immediate cause of death in small-pox; and that in conducting its treatment, we need look only to the bronchial symptoms. This latter

opinion has been lately urged with the greatest confidence by some writers in the earlier Numbers of " the Medical Intelligencer," more particularly Mr. Alcock of Piccadilly, whose opportunities of seeing small-pox have certainly been very great. I think it right to notice the opinions of this gentleman, and to offer some comment upon them before I proceed, because if they are correct, the object of the present paper is altogether frustrated.

We read in page 287 of the first vol. of the " Medical Intelligencer," that the result of Mr. Alcock's long continued *observations* is, " that in this country *inflammation* of the mucous membrane of the air passages is generally the cause of death in small-pox;" and the result of his *experience* is, " that death can generally be averted by early and judicious attempts to prevent or remove this *inflammatory* affection of the respiratory organs." This principle is urged with even more force by Mr. Alcock himself at page 200; inasmuch as the qualifying clause " generally," is not to be found there. The author's own words are, " I cannot refrain from recapitulating as a general fact, that the danger of small-pox has *always* been in the ratio of the laryngeal, tracheal, and bronchial *inflammation;* and that this *inflammation* has usually borne a strict relation to the aphthous eruptions which are to be found in the throat." He then adds, " that a reference to the state of the throat in the early days of the eruption, has formed an *almost unerring* guide to the future practice, and in *nearly all* cases of confluent small-pox, when seen thus early, a decidedly depletory and antiphlogistic system of practice has conquered the disease, and saved the person's life. So certainly, the author states, has this treatment answered the intended purpose, that in many cases the disease has been cut short; the eruptions have run through their course more rapidly than under ordinary circumstances; the secondary fever, as it has been called, has not occurred; and the person's countenance has been left free from pits, or the marks have been comparatively slight. " If called in during the progress of the fever which *precedes* the eruption," continues Mr. Alcock, " a similar mode of treatment will almost invariably *prevent the disease from becoming confluent at all.*" A few paragraphs before, the author had stated that " by injudicious treatment almost any case of small-pox may be rendered confluent."

In a subsequent page of the same volume, (page 287,) the gentleman who supports Mr. Alcock's views states, (and we may presume, with Mr. Alcock's concurrence,) that modern medicine daily refutes the idea, that " *the character of an*

epidemic is beyond the control of the Practitioner." He characterizes, or rather stigmatizes this idea as a *gratuitous assumption*; as an *error* into which a man falls when he neglects what is obvious and common, to search after occult and specific qualities; as an "*illusion of creative genius,*" which the "influence of time" may perhaps dissipate, but which the Profession should be warned against, because most *erroneous* in a pathological and practical view; as *bad medical philosophy,* as a *bane* to which the comments of the reviewer will, he trusts, operate as an *antidote.*

The sentiment thus strongly protested against, is one of those which it is my object to enforce in the present paper; and the reader will see, therefore, how impossible it would be for me to attain this object, without offering some explanation of the remarkable discrepancy of opinion subsisting between Mr. Alcock and myself on the subject of the "*causes of death in small-pox, and the general principles upon which its treatment is to be regulated.*" This explanation I offer with the more willingness, first, because the ideas entertained by Mr. Alcock are by no means peculiar to that gentleman, but prevail among a very respectable class of Practitioners in this country; secondly, because the *prima facie* evidence may perhaps by many be considered to be favourable to them; but chiefly and lastly, because a slight criticism upon them will, as it appears to me, point to a very curious, and though not new, yet certainly neglected principle in pathology.

Mr. Alcock has related (in page 200,) the appearances found on dissection in a case of confluent small-pox, which proved fatal on the ninth day, and it may be taken as *instar omnium.* "On examination after death, the trachea and bronchia were found filled with greyish puriform matter — the larynx and pharynx were swollen, and covered with numerous portions of coagulated lymph, as were the trachea and bronchia. The œsophagus was pale, and free from diseased appearance; the lymph and *inflammatory* indications extending no farther down the alimentary canal than the pharynx. The stomach and the large and small intestines showed no trace of disease." I am quite ready to acknowledge that such appearances are *very common* in those who die of small-pox between the ninth and thirteenth days, and they certainly appear to bear out Mr. Alcock in his conclusions; but it is one thing to describe appearances, and another to draw pathological inferences from them. Before Mr. Alcock's "principles" can be considered as established, we must acknowledge the justness of three different con-

clusions which he derives from these phenomena, and which he considers indeed to follow so immediately and obviously from them, as not to require further proof.

The first is, that these appearances are decidedly "*inflammatory*," and that they cannot be explained, except upon the supposition of previously existing inflammatory action. The second is, "That, supposing the appearances entitled to the appellation of inflammatory, the inflammation that leads to them is of the same *kind* as that which exists in peripneumony." That such is Mr. Alcock's opinion, is obvious from the general tenor of the passages which I have quoted; but lest I may be supposed to misrepresent him, I shall extract two other passages, which are inexplicable on any other supposition. He states himself, (page 156,) that though inflammation of the mucous membranes of the organs of respiration arises both from common and specific causes, yet that "this division is adapted (*adopted*?) more as a mechanical help to methodical arrangement and precision, than from any *essential* or *specific* difference in the diseases themselves, when established." Further, the reviewer (understood to be Mr. Haden, of Sloane Street,) thus expresses himself, when speaking to the same point, (page 287): "Sydenham, though an acute observer of particular facts, had not a generalizing mind; and it therefore never struck him, that the pathology of his peripneumonia notha and that of small-pox was strikingly similar; but Mr. Alcock has shown this, and even pushed the *generalization* further." The third supposition which Mr. Alcock considers *involved* in the very enunciation of the bronchial appearances just mentioned, (for it can hardly be called a *conclusion*,) is, that death in small-pox, occurring about the ninth day, is attributable *immediately* to this particular state of the air passages, which we are not authorized in considering merely as *one* among *many* in that series of phenomena which small-pox exhibits, and to whose *joint* operation the fatal result might be ascribed.

This analysis of the different points which are involved in Mr. Alcock's *generalization*, is not given with the view of throwing an unfair discredit on that gentleman's views, but simply to show, that the truth, in matters of pathological science, does not lie so near the surface as some authors would wish us to believe. Each of those points, which will be found taken for granted through the whole tissue of Mr. Alcock's speculations, and which I have thus attempted to unravel, admits of some doubt; and can hardly be admitted by the most determined admirer of the "*phlogistic theory*" without some limitations. I have seen, for instance, these

appearances in the larynx and trachea, in cases where the pulse had continued *soft* during the whole course of the disease, and where little or no pain was referred to the throat, with little or no difficulty of breathing. On one occasion (case of Sarah Denier, Small-Pox Hospital, April 1821,) I observed them in great perfection, where the symptoms, during life, had been those of phrenitic inflammation;—at least, in this all the previous symptoms of affection of the fauces had merged. I have observed them after copious bleeding, as well as in cases where that remedy had not been resorted to. Such facts would seem to show, that the idea of these being, in *all* instances, genuine inflammatory appearances, is *somewhat* doubtful. I have more than once been inclined to believe, that they are sometimes owing to the afflux of blood upon the mucous membrane of the air passages, merely in consequence of the destruction of a great portion of skin; and to this conclusion I have been led, partly by the well known similarity of function existing between these two structures, and partly by the consideration, that these particular appearances in the bronchia, so well described by Mr. Alcock, are only observed between the ninth and thirteenth days of the eruption, when, in the natural progress of the pustules, a great destruction of skin must necessarily have taken place.

But even supposing these appearances to merit, in all cases, the appellation of *inflammatory*, (and, perhaps, it may be considered hypercriticism to object to this,) still a great doubt remains upon my mind, whether the inflammation which occasions them is so "strikingly similar" to that of peripneumonia, as has been represented. I am quite sure, that in all the cases of peripneumonia, croup, and common bronchitis, which have fallen under my own immediate observation, I have never seen any thing *at all similar* to the appearances presented by the trachea and bronchia between the ninth and thirteenth days of small-pox. The inflammation which precedes them is, in reality, of a very peculiar kind, as "*essentially*" distinct from the inflammation of common bronchitis, as the eruption of small-pox is different from common erysipelas, or phlegmon. If an opportunity offers of examining the trachea and bronchia during an earlier stage of the disease, it will be found that their internal membrane is studded with points, which become afterwards, as Mr. Alcock himself remarks, "aphthous vesicles, and ulcers." The inflammation present in the trachea at that time is as much entitled to the character of a "specific inflammation" as the areola of cow-pox; and surely such a character cannot be denied to the latter. The determination

of this question, I would observe, is not to be looked upon as a mere matter of pathological curiosity. If, as Mr. Alcock says, the tracheal inflammation *commonly* occurring in the course of small-pox, be, in no respect, different from that of common inflammation, then, indeed, we may reasonably hope to check it by the usual antiphlogistic remedies. On the other hand, if it be peculiar, if it resemble the inflammation surrounding the vesicle of cow-pox, which, as we all know, *must* run its course, then it is equally plain that the common antiphlogistic remedies cannot check it, or, if they are serviceable, *it must be upon a different principle from that stated by Mr. Alcock.*

Conceding, however, for the sake of argument, that the appearances of the trachea and bronchia formerly noticed, are *inflammatory,* and that the *kind* of inflammation which precedes them is identical with that of peripneumony, it remains to be proved that death is attributable *immediately* to them. That such is Mr. Alcock's opinion is obvious from the whole context; but it is put beyond all question by a passage of his own essay, (Medical Intelligencer, vol. i. page 198,) in which he states, that " the similarity of this adventitious production (in the throat of those who die of confluent small-pox) to the membrane of croup, and the invariable affection of the larynx and pharynx, as exhibited by dissection, soon convinced me that the *immediate cause of death was suffocation,* and the further examination of the air passages confirmed me in this conviction." After paying a good deal of attention to the latter stages of confluent small-pox, I cannot say that I feel equally " convinced" that, in this disease, the patient dies suffocated. The train of symptoms which precede dissolution more closely resemble those of extensive burns and scalds, than those of croup. I am not acquainted with the appearances presented by the trachea in cases of severe destruction of the skin by burns and scalds, but I can even conceive that they may possibly bear some analogy to those of small-pox, and yet the patient could not be said to die suffocated. It is generally admitted that death, in these cases, is owing to some effect on the brain and nervous system, occasioned by the destruction of a large portion of an organ, whose function is essential to life. Of the exact nature of this secondary affection of the nervous system, we shall probably for ever continue ignorant; but we are not on that account to neglect it, or to substitute, in its stead, an explanation more adapted to our own limited capacities. Among the more remarkable of the symptoms which precede the fatal termination in confluent small-pox, may be

noticed, tremors, rigors, delirium,—symptoms evidently depending upon some *positive,* though ill-understood affection of the brain and nerves.

The real state of the case then, as far as I can understand it, is this: The particular state of the air passages, described by Mr. Alcock, is only one among many in that series of phenomena which small-pox exhibits, to the joint operation of which death is to be attributed. I am far from wishing to say, that the tracheal appearances are to be disregarded. I am well convinced they are of great importance, and require a large share of attention both from the speculative and practical observer; but if there is one general principle more than another which I am desirous to press, it is this, that the danger in confluent small-pox is proportioned, not, as Mr. Alcock says, to the tracheal and bronchial inflammation, but to the extent to which the destruction of skin has gone. If any considerable portion of skin is rendered, in the course of the disease, unfit to carry on its function, the patient's life is in hazard. If the *entire* skin of the face be involved in this state of disorganization, we can hardly expect to save the patient.

In the form of a comment on the opinions of Mr. Alcock, I have thus attempted to point out what I believe to be the most common mode in which death takes place in confluent small-pox. We have two processes going on at once,—destruction of a large and *continuous* portion of skin, and the effusion of a tough, greyish, puriform matter upon the mucous membrane of the trachea and bronchia. These bring on a secondary affection of the brain and nervous system, of which the patient dies. Whether the abundant secretion into the air passages contributes to the fatal result, I am not yet altogether prepared to say; but it probably does. As I believe this mode of death to be (with the single exception formerly pointed out) peculiar to small-pox, I have called it, for brevity's sake, the *specific mode of death in small-pox,* and we shall hereafter have frequent occasion to refer to it.

With this, Mr. Alcock's views regarding the causes of death in small-pox, appear to terminate; for though it is stated, in one place, that inflammation of the mucous membrane of the air passages is *generally* the cause of death in small-pox, yet I find no precise allusion to any other. With this, therefore, I terminate my criticisms on an author, to the accuracy of whose *observations* I am anxious to make every due acknowledgment, and to whose conclusions from them I object, not as erroneous, but merely as *imperfect.*

Having occupied so much time in the discussion of the

specific mode of death in small-pox, I shall reserve, for consideration in the next Number, the accidental causes of death in small-pox, and the principles of treatment which these pathological speculations will, if correct, tend to establish.

II.

Case of Retroversio Uteri, attended with some particular Circumstances. By William Bartlett, Surgeon, Great Bedwin, Wilts.

E. S., about twenty-three years of age, of delicate habit, and lax fibre, was attacked, on the 8th of August last, with frequent inclination to make water, and difficulty in passing it, as well as an inclination to evacuate the contents of the rectum. This affection was accompanied with occasional faintness; but not so severe as to prevent her from following her usual occupations. After complaining five or six hours, and whilst walking across the room, in an instant (to use her own expression,) "she felt as if she had lost her belly." This was soon followed by total suppression of urine, with pain in the back, belly, and both groins, but more particularly the left, with bearing down pains at intervals, similar to the first stage of labour, which she considered as actually begun, and accordingly sent for me in the night. From the symptoms complained of, I should have treated it as nephritis, but for the remarkable expression of *having lost her belly*, which led to an examination *per vaginam*. I was much surprised at finding the vagina nearly filled by a conical tumour, the apex of which touched the finger as soon as it entered the os externum; and in searching for the os uteri, I distinctly felt, through the parietes of that viscus, the feet of the fœtus, the heels being towards the os externum. The finger passed very readily between the tumour and pubis, without being able to reach the os uteri, and towards the sacrum it met with resistance from the posterior part of the vagina. That part of the tumour pressing against the sacrum, had a very irregular feel, similar to the overlapping of the parietal bones which we frequently find in the last stage of labour, where the head is large in proportion to the pelvis. As I could not discover the os uteri, the case was new to me: I had not met with such a circumstance during a practice of twenty years. I began to reflect upon the symptoms; the most distressing were the retention of urine and irritation of the rectum, besides which she had an anxious countenance, quick and irritable pulse, hot skin, headach and nausea, and the belly just above the

pubes was painful to the touch, but loose and flabby to the feel, not any way like the abdomen of a woman in the seventh month of her pregnancy, which the sequel proves this woman to have been. As I invariably carry a female catheter in my side pocket, I emptied the bladder of more than two pints of transparent straw-coloured urine, which gave her much relief; ordered the bowels to be emptied with a common gruel clyster, and left a dram of the tinct. of opium to be added to another, if the forcing down pains continued, and gave her a saline demulcent mixture, with five minims of tinct. opii every four hours, and left her for the night, with a strict injunction to remain quiet in bed till I saw her again. I called again at mid-day on the 9th; the bowels had been emptied with little or no benefit, and although the forcing down pains were frequent, she could not be persuaded to have the anodyne clyster injected, from the pain she suffered with the first. Her situation appeared worse than when I left her, as she had a much hotter skin; the pulse were 110, small and cordy to the feel, the soreness of the belly increased, and the pains in the back and loins still continuing; the nausea had risen to frequent vomiting, so that very little but the mixture was retained, with continual headach and thirst, and retention of urine. To obviate inflammation, I took twelve ounces of blood from the arm, and to lessen the irritability of stomach and uterus, I gave her an effervescent draught every three or four hours, with five minims of tinct. opii in each, and ordered the bowels to be emptied once or twice a day by clysters, *if possible*, and the belly to be now and then fomented with decoct. papaveris, and I again emptied the bladder, and, as my residence was four miles from my patient, I instructed the nurse how to use the catheter, and gave orders that it should be done every four or five hours, to try the effect of Dr. Merriman's plan, as I considered it the most rational mode of treatment that I had been able to collect from various works on the subject. Before leaving the place I called again. The head and skin were relieved by the bleeding, and the stomach was, in some measure, quieted by the draught she had taken. Upon my visit next day, although the sickness was less urgent, there was little or no amendment: she had still a hot dry skin, great thirst and headach, and there had been a good deal of delirium during the night; the pulse were more full than at any former period, and as the blood drawn yesterday had a firm coagulum of lymph on its surface, and was somewhat cupped, I determined on a second venesection; the rectum had been emptied once, and the bladder twice, in the twenty-four hours. As I had previously informed her, that there was a probability of relieving

her by manual operation, if the plan I had put her on did not succeed, she became importunate that something should be attempted for her relief, saying, that the pain in the loins and left groin was greater than she could bear. I yielded to her solicitations, adopting the method first recommended by Mons. Gregoire, with one finger in the vagina and another in ano, having previously emptied the bladder, and varying the position from the back to the knees and elbows: my attempt was fruitless; the posterior part of the tumour was so wedged in the pelvis, that I could make no impression upon it; therefore I determined upon introducing the hand into the vagina, which being readily accomplished, I had the satisfaction, after a few minutes' gentle pressure, of replacing the uterus in its natural situation. The woman, from her expression, was conscious of its being so. After withdrawing the hand, I introduced a finger, and found the os uteri very readily. The irritability of the stomach, headach, and other febrile symptoms were soon relieved, but the soreness of the belly continued for two or three days. The use of enemas and the catheter were persevered in, and a recumbent position enjoined. As her health mended, she soon got tired of bed, and left it, which brought a return of the complaint on the 18th. The retroversion was not allowed to continue so long as to derange the system; she now became convinced of the necessity of a recumbent position, which, with the use of the catheter three or four times a day, and occasional clysters, were persevered in for a month, when she was able to pursue her usual avocations. During the time of her confinement in bed, I desired she would get on her knees and elbows once or twice a day, and remain in that position as long as she could without fatigue. She was taken in labour on the 7th of October, and after a tedious parturition of ten or twelve hours, was delivered of a full grown child, the presentation face to pubes, and is now in a good state of health.

The peculiarities in this case were, first, the period of attack; secondly, the conical presentation, instead of the large round semi-globular tumour, as described by Smellie, Denman, Merriman, Nesbit, and others; and, thirdly, the retraction of the feet of the fœtus previous to labour. In regard to the period of attack, Nesbit says, it can only happen at any time from the third to the fifth month; Denman and Burns say the third or fourth; and in the six cases related in Dr. Merriman's little tract, the period of accession was from the second to the fifth month.

I have been lately giving the vin. semin. colchici in some cases of acute rheumatism, with remarkable success, which I hope to give an account of shortly.

III.

Case of Rheumatic Metastasis to a vital part. By Edward Thompson, Member of the Royal College of Physicians, London.

Those cases in which our treatment has been eventually successful, give us more pleasure in detailing than our instances of failure: we refer to them with confidence, as the only true criterion by which the efficacy of our means can be determined, and we recommend accordingly; knowing that it is only by the aggregate experience of many, that correctness in pathology, and improvement in practice, can be established or confirmed. But the history of fatal cases is not without its good; if no new remedy can be proposed, something may be pointed out as necessary for us to avoid; and though our experience may have been bought at too high a price, when it is purchased by the loss of life, yet, if such loss can be traced to the action of a particular remedy, not unfrequently used, it behoves us to publish what we have found so pregnant with danger. I am induced, therefore, to forward this case to the Repository, of sudden translation to a vital part of rheumatism.

On the 16th of March last, I was requested by T. R., a sailor, aged twenty-two, to direct some application or other for his shoulder, which he said had been, a day or two before, attacked with rheumatism, having imprudently exposed himself to a cold wind, without a coat, shortly after using violent exercise. The pain was a gnawing rather than an acute one, extending about a third down the arm. Some difficulty was felt on raising the hand up to the head. No redness or swelling was apparent, and pressure could be applied without giving much pain. In some measure sleep was prevented, the pain being more troublesome at night than during the day; but his health was good, having neither fever, loss of appetite, nor any other symptom indicative of systematic derangement. The local complaint appeared to be the only one requiring attention. He was desired to keep within doors, and apply, in the manner recommended by Dr. Scudamore, the evaporating camphor embrocation. A cathartic powder, formed of jalap and calomel, was ordered to be taken in the morning, and a diluent diet was enjoined. I did not see him again for two days.

19th. There seems but little improvement; he had a few hours sleep in the night; appetite continues good; pulse natural; tongue clean; bowels regular: the powder on the

17th operated briskly, and no pain or uneasiness in any part is complained of, excepting the affection of the shoulder, which, to use his own words, is bearable enough.

℞ Sp. Camph. ℥iij.
Sp. Ammon. Comp. 3ij.
Parti dolenti applicanda.
℞ Pulveris Ipecacuanhæ Compositi, gr. x.
3tiis horis quovis vehiculo sumend.

20th. Symptoms as yesterday; perspired a little in the night, but the perspiration was only partial. The powders had rather sickened him, owing probably to the quantity of liquid taken with them.

Pergat.

21st. Some abatement in the pain; pulse still continues regular; bowels not open since the 19th; tongue a little whitish; perspiration more general and profuse: ordered him to keep up stairs, having always before been dressed and with the family in the room below.

℞ Supertart. Potassæ Jalapii, āā ℈j.
Pulv. Aromat. gr. ij.
Fiat pulv. vehiculo aliquo idoneo sumendus.

22d. The cathartic had operated well; got very little sleep in the night, the pain having troubled him much; found relief from the embrocation, when rubbed into the skin. Other symptoms as before, except that the pain is more diffused. Pulse 74; tongue moist; is in a slight perspiration: very desirous to be soon able to go out.

Contin. pulv. ipecac. comp.
℞ Opii, gr. vj.
Calomel. gr. xviii.
Syr. q. s. Fiat massa in pilul. vj. dividenda. Sumatur una mane nocteque.

At half past eleven, P. M., was desired instantly to visit him, he being, as the person informed me, in a dying state. On my arrival I found him lying stretched out, with his mouth half open, eyes fixed, and breathing scarcely perceivable. His body and limbs were covered with a cold clammy sweat; pulse at the wrist not to be counted, consisting of a vibration rather than a beat, except an occasional one occurring every thirty or forty seconds. He appeared to be sensible, and when he was asked where he felt pain, pointed to his breast. He lost the power of speech a few minutes before I got there, but was very solicitous to be understood, waving his finger for those about him to come nearer to him. I stepped down stairs to speak to his mother, but was

quickly recalled, and before I returned to the bedside, he had breathed his last.

From the persons by whom he was attended during the day, I collected, that soon after my visit he wished to have the embrocation applied, which was done. The anxiety expressed by him to be soon able to return to his employment, made them frequently have recourse to friction with, and sometimes without, the embrocation, this being constantly followed by a remission of pain. As soon as it returned, the like treatment was again resorted to, with the hope that the affection might be quickly overcome. The recession of it to the neck, arm, and back, was looked upon as auguring success, and to each part was the pain pursued with unremitting pertinacity. In the afternoon, about four, metastasis to the pericardium, or heart, (judging from the account given) took place. He complained of uneasiness in his breast, accompanied with difficulty in breathing, violent palpitation, and faintness: these symptoms increased, although not with that severity to excite alarm, and therefore aid was not sought till it was past the power of art to extend relief. The pain left the shoulder many hours before he died: it had never had the slightest appearance of recession till the means above mentioned were so actively enforced. Permission was not given to open the body, which is much to be regretted.

The application of rubefacients to the pained parts in acute rheumatism, has been strongly condemned by Dr. Armstrong. Four cases of sudden translation to vital parts are spoken of by him, caused by the particular action of remedies thus applied to the skin. How they act it is difficult to say, but that they will produce such effects is now fully established, and has been long known. * "Si rheumatismus huic male medeatur, vel per purgationes alvi ineptus, vel usum imprudentum medicamentorum reprimentium, *sicuti spiritus vini camphorati*, vel aliter exasperetur morbus, observatum est †, quod hemiplegia, apoplexia, phrenitis, peripneumonia, asthma, colica, nephritis, aut hydrops, nonnunquam superveniunt, ægrumque ut plurimum e medio tollunt." Here, then, we see the necessity of pausing before we have recourse to agents, which may occasionally be the cause of death, and though they may oftentimes be employed with impunity, we are taught that sometimes dangerous consequences may ensue. Nay, that in cases of local disease, unaccompanied by scarcely any constitutional derangement, unhappy effects may arise

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* Dissertatio Medica Inaugularis de Rheumatismo. By Dr. D. Clark, 1746.

† Pascoli de Homine, &c. lib. iii.

from the employment of rubefacients. The one above narrated is the only one that I can refer to; yet it speaks strongly against them. In slight rheumatic affections, they are commonly the only applications Practitioners use, and they are frequently beneficial; but it should never be forgotten, that they possess fatal properties, requiring careful restriction in their application, and assiduous attention to their action. Should the pain wander, under their use, it would, perhaps, be the best practice to desist, and fly to constitutional means; or if we must have outward medicaments, let us apply some inactive thing in the way of placebo, rather than persist, after such threatenings, with our friction, &c., thanking Etmuller and Sydenham for suggesting applications that can do no harm.

IV.

Case of Injury from a Fall, in which the Symptoms of Compression and Concussion of the Brain were both present.
By C. Heineken, Surgeon, Bow.

Charles Watham fell from a height of between twenty and thirty feet, on the evening of the 31st of August, upon the left side of his head and shoulder. He was stunned, but soon recovered sufficiently to walk home, a distance of two or three hundred yards, supported by two men. After he had been in bed a short time, he became partially comatose, breathed naturally and quietly, complained of acute pain in the left temple, and although disinclined to speak, was perfectly sensible when addressed. He had not vomited, and his pulse was full and quick.

V. S. ad ℥xxxv., Hyd. Subm. gr. x. statim. Mist. Cathart. fort. 2da quaque hora. Hirudines No. xij. tempor. sinist.

Sept. 1st. (Morning.)—The breathing is now stertorous. The right pupil contracted, the left dilated, and both insensible to the stimulus of light. He is completely comatose, and the pulse is full, slow, and labouring. No fracture can be detected, although the head, which is shaved, has been attentively examined, and a free incision of three or four inches in length made from the upper part of the left parietal bone, (the part on which he fell,) towards the zygoma.

V. S. ad ℥xxv, Emp. Lyttæ amp. nuchæ. Cont. Mist. Cath. et applic. Lotio evap. capiti.

(Afternoon.)—Pulse more free and natural; breathing

somewhat less stertorous: still comatose, with both pupils fixed and insensible.

V. S. ad ℥xij. Hyd. Subm. gr. x. statim. Cont. Mist. et Lotio.

2d. (Morning.)—He now knows every one around him; asks for whatever he wants, and although constantly sleeping when left to himself, yet it is attended with very slight stertor, and when spoken to, his answers are rational, but like those of a drowsy man. The bowels are constantly acted upon by the medicine, and the pulse is soft, free, and natural.

Rep. Mist. et Lotio.

(Evening.)—The dozing still continues, and the pulse has risen since morning.

V. S. ad ℥xij. Hyd. Subm. gr. x. statim.

3d.—Has passed a good night *without stertor*, and is now talking to his friends. He raises himself up in bed occasionally, and although still falling into a doze when left alone and quiet, yet is easily roused, and the breathing is *not in the least* stertorous. The pulse is about 90, and he only complains of the pain in the temple. The right eye has recovered, but the vision of the left has not returned, and its pupil is still fixed and dilated.

Hirudines, No xij. temp. sinist. Hyd. Subm. gr. v. statim. Cont. Mist. Cathart. et Lot. evap.

4th.—Has passed a restless, delirious night, and is now quite comatose; it is with difficulty that he can be roused, and he then answers incoherently. The breathing is laboured and stertorous; both pupils are insensible, and the pulse is becoming very rapid.

V. S. ad ℥xij. Cont. Mist. et Lotio.

(Evening.)—The bleeding afforded but slight and temporary relief. He is extremely restless, and in a state of constant muttering delirium. Pulse scarcely to be numbered.

V. S. ad ℥viij. Emp. Lyttæ Capiti toto.

5th. (Morning.)—The pulse is innumerable, and he appears moribund.

(Evening.)—Died about the middle of the day.

N. B. None of the blood drawn, though from large orifices, excepting the last ℥viij, had any of the generally supposed characteristics of inflammation; but this (the ℥viij) was covered with a thick buff, and very much cupped.

Examination.—The vessels of the dura mater full of blood; those of the pia mater in a natural state. The substance of the brain more than usually exsanguinous; the plexus choroidis pale; ventricles healthy.

A fracture, with very slight depression, commencing about an inch below the termination of the incision in the scalp, and extending through the squamous and orbitar portions of the temporal bone. A large coagulum of blood (at least ℥iij) between the dura mater and skull; flattening the anterior lobe of the left hemisphere by its pressure, and extending from the commencement of the fracture, where the spinal artery of the dura mater was ruptured, along the basis cranii, to the foramen magnum.

This case is one in which the symptoms of concussion and compression appear to have been so much blended, that I think it may be of some practical utility, and with this view it is offered to the pages of the Repository, more, however, in the hope of eliciting the observations of others on a subject, which, although it has engaged the attention of some of the most eminent surgeons of former times, as well as the present day, is still involved in considerable obscurity, than with a vain endeavour, on my part, to contribute to its elucidation—a task for which I feel my incompetency.

Although it has long been, and still remains, a disputed point, whether severe concussion produces merely a functional derangement of the sensorial system — lesion of the substance of the brain — or excitement to inflammatory action; yet the symptoms which attend this degree of injury are pretty accurately marked, and the mode of treatment very clearly indicated. Compression however, unless from an external and ostensible cause, is unfortunately, in many instances, by no means decidedly pointed out by its attendant symptoms, and, as in all cases where it is produced by violence, concussion must more or less coexist, we are not always enabled to draw correctly the line of demarcation between them. On the evening of the accident, the subject of it was clearly labouring under the effects of concussion only, and, on the following morning, it was quite as clear that those of compression had supervened. No fracture being detected, and some time having elapsed between the fall and the accession of symptoms, it was reasonable to suppose that the pressure arose from blood, and as this was quite as likely to be without, as within the reach of the trephine, I felt justified in trying the effect of the lancet first; and the very decided relief which was afforded, induced me to place, as the event proved, too great reliance upon it. That stertor does not invariably accompany compression, we

have here an instance*: on the 2d there was very little; on the 3d, none at all; but the compressing cause must have remained at least undiminished, for the utmost depletion could effect was the prevention of its increase. On the 4th, an operation was the only hope; and although I esteemed it a forlorn one, ought, perhaps, even then to have been had recourse to. Post mortem examination showed that it must have been unavailing; but this is, I am aware, no fair proof of its impropriety.

V.

Sketch of two Cases of Purpura Hæmorrhagica, treated successfully by Oil of Turpentine. By Whitlock Nicholl, M. D., &c. &c. Ludlow.

The subject of one of these cases was a man, aged thirty-seven, a dealer in pigs, who had been in the habit of using a great deal of exercise, and whose health had been very good until the spring of 1818, when, being very much exposed to rain, he *took cold*, and he became generally anasarcous; but the anasarca was speedily removed. After this attack, he continued well until the 30th of August of the same year, when he was suddenly seized with cold tremors, and with

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* Three other instances of its absence occur to me: first, Samuel Freeman, aged eleven, 21st October, 1816, trephined, and died eight hours after his admission into St. Thomas's Hospital.

Symptoms.—Insensible, restless, and continually moaning; breathing *free and natural; pulse* 100, *small and feeble; pupils acted upon by the light;* injury extensive; fracture (without depression) of the left parietal and temporal bones, and a very considerable extravasation of blood under the dura mater, at the occiput and opposite side from the injury.

Second, Thomas Fennell, aged seventy, Oct. 1st, 1816, died twenty-seven hours after admission.

Symptoms.—Pulse slow and labouring; pupils dilated and partially acted upon by the light; moans continually, and although he appears sensible to pain, cannot be roused; *breathing natural,* and has not vomited. Injury: Laceration of the brain above and into the left ventricle, which was filled with blood.

The third is that of a girl, who, with every other sign of puberty, had never menstruated: she was attacked while in bed with apoplexy. The pulse was *soft* and *natural*, and the breathing *perfectly calm* and *easy*. Many hours elapsed before stertor came on. She died, and the brain and membranes exhibited as marked a state of universal plethora as I ever witnessed. No vessel had given way.

pain in the back. On the following day he was very ill; his urine, he says, was of a very deep red colour, and it suddenly was suppressed, so that, during three days, there was scarcely any secretion of urine. He took calomel and jalap with saline aperients, which purged him freely; and under the operation of these medicines, the flow of urine returned. On the 7th of September, he was so much better that he rode to a place seventeen miles off. On the 8th, he observed dark purple spots on his lips, on his tongue, and on different parts of the body. He became, on a sudden, extremely weak, and he was seized with tremors. I saw him on the 14th. He had, at this time, several dark purple spots on the inside of the cheeks, on the tongue, on the lips, on the arms and thighs, and a few on the trunk. His stools were very bloody, and his saliva was rendered bloody by the fluid which oozed from the inside of the lips and cheeks, and from the tongue. The urine was high-coloured. He was extremely thirsty. There was an expression of great languor and debility in the eyes, and in the countenance generally, as well as in the whole character of his gait and motion. He had been, for some days, under the care of a medical gentleman, who had given him purgatives, which operated freely on the bowels. I gave him five grains of calomel and ten of jalap. On the following day, I found that he had been purged. The symptoms continued as on the preceding day. Several patches of ecchymosis were apparent on different parts of the body, and the slightest scratch with the nail produced effusion of blood from the denuded part. I gave him ʒvj of oleum terebinthinæ at bed-time, and, on the following morning, he took ℥ss more of that medicine. His diet consisted of broth, gruel, and barley-water. He continued the use of the oil of turpentine until the 22d, taking every day a dose, varying from ℥ss to ʒx, until he had taken ℥vj of that liquid. Under the use of this medicine, the symptoms rapidly disappeared, and he has continued, up to the present day, in the active pursuit of his business, being free from ailment.

The other case was that of a girl, about twelve years old, in whom the attack of purpura came on at the decline of measles. She had been, for some months, affected with cough, and with expectoration of thick fluid. The expectorated fluid became at this time mixed with dark blood; her stools were bloody; and several purple spots were scattered over the body. Her pulse was frequent, and her debility was considerable. I gave her ℥ss of ol. terebinthinæ, which dose she repeated once or twice. Under the use of this remedy the spots disappeared; the stools became natural in appearance; the expectorated fluid ceased to be bloody, and

the quantity of it was lessened. Her general health was improved, and she is now in tolerable health.

These are the only cases of hæmorrhagic purpura which I have met with since I first thought of administering the ol. terebinth. in that disorder. I have given it in simple purpura also, with much advantage. In other cases of hæmorrhage from the bowels, I have also given it, as other persons also have, with great benefit. I can bear ample testimony also to the utility of this medicine in catarrhal affections of the bronchia; in the tympanitic state of the abdomen, which frequently occurs at the close of typhus; as also in the hæmorrhage from the intestines, which sometimes occurs also at the close of that disease; in the latter stages of inflammation of the mucous lining of the intestines, when the abdominal parietes are flattened and drawn in, and where there are griping pains, with tenesmus or with purging; or where there is general uneasiness and tension of the abdomen, with griping and flatulence; where the bowels appear to have lost their tone from over-distention; in that undefined condition of the mucous membranes of the alimentary canal, by which irritative fever is kept up; in obstinate constipation; in cases which bear the name melæna; in cases of tænia and of lumbrici: in all cases of these several kinds I have employed the oleum terebinthinæ with marked success.

VI.

Two Cases of Phthisis Pulmonalis; one the consequence of Peripneumonia, and in which very large Doses of Digitalis proved signally successful. By W. Wansbrough, Fulham.

—— Mason, aged thirty-three, of strong robust habits, was attacked, on the 10th of December, with sharp lancinating pain in both hypochondriæ, extending to between the shoulders; breathing short and difficult, with dry hard cough; unable to lie on either side, or on his back, he was obliged to be retained on his bed in a recumbent posture. He had been working in the docks and caught cold four days before. His pulse was 120, small, hard, and vibratory; considerable pyrexia. I bled him to the amount of sixteen ounces, which produced relief, ordered him an antimonial aperient, and left him for the night.

11th A. M.—The breathing still difficult; pulse 100, still vibratory, but fuller than last night; the tongue, which appeared white yesterday, is now covered with a brown fur;

thirst great. The aperient has produced three copious motions, but without any abatement of symptoms. I bled him again to the amount of thirty-two ounces, until the pulse faltered. His breath much relieved. A blister was applied to the chest, and pulv. antim., with mist. salin. were ordered.

On the 13th and 15th he was bled again, but with very little abatement of symptoms. On the 15th, after the bleeding, he fainted, and the pulse fell to 80.

On the following day, 16th, he began to expectorate, and in the course of twenty-four hours, he expectorated *forty-eight ounces of pus and purulent matter, of a most intolerable fœtor.* This continued until the 18th, in spite of every effort to check it. Finding that the blood throughout exhibited the buffy coat to the thickness of an eighth of an inch, even to the last bleeding on the 15th, I desisted, and endeavoured to abate the tremendous extent of the expectoration by hyoscyamus, combined with expectorants, but without effect.

On the morning of the 18th, he seemed to be sinking fast from the violence of the disease, and the depletions he had undergone. His cough was now almost incessant, and followed by copious expectoration at each effort, that he said nearly suffocated him. He had been delirious in the night; the pulse ranged from between 125 to 127. I exhibited the tincture of digitalis for the first time in doses of twenty, forty, and sixty drops, in the mist. amygd. every six hours. I had numbered the draughts, 1, 2, 3. The nurse, in mistake, gave the last for the first; the consequence was almost immediate vomiting. I was desirous of witnessing the effect of these first doses, and I called, when he had just taken the second as numbered. I found him vomiting matter in a stream. It struck me immediately that he had taken the wrong draught, and inquiry verified my suspicion. In anxious expectation I awaited the result, and in a few minutes he vomited pus and purulent matter, to at least twenty-four ounces, and sank exhausted on his pillow. I counted his pulse, it beat full and soft beneath my finger at 68. He fell asleep. The last draught was not given to him; he took, instead, the mist. amygd. The effect which the digitalis produced here appeared to me to be a rupture of the abscesses and ejection of their contents; such, at least, was the impression on my mind, when I saw the matter issuing from his mouth whilst his head was over the basin. I saw him at eight o'clock P. M. the same day. His pulse had sunk to 40, but full and soft; a gentle perspiration covered the whole surface of his body. He was too weak to answer any questions. His breathing was deeper and more free. In this state of debility, I gave him, at

intervals of half an hour, two tea-spoonsful of tent wine, which was continued during the night. I did not expect he could survive until the morning.

19th, Mane.—Pulse 43. He is able to tell me that he feels much relieved. The cough has been severe during the night. He is very weak; bowels costive. Inf. sennæ, mag. sulph.

Vespere.— Digitalis twenty drops 6tis horis. Pulse 41. Ordered arrow-root and milk.

20th, Mane.— The pulse has risen to 72, full, and soft; the expectoration continues to thirty-two ounces in the twenty-four hours, still pus and purulent matter.

Vespere.—Pulse 84. Ordered the tincture of digitalis twenty drops sextis horis.

21st, Mane.— The pulse is now 41, and, *for the first time, intermitting.*

Pergat.

22d.— Pulse 72. The intermittent character of the pulse ceased during this day, and it continued regular and steady at 72 to 76; the expectoration gradually decreasing, until the 29th, when vomiting was again produced by the digitalis, and the pulse sunk to 64; it, however, again became 75 and 76, until the 5th of January, 1821, when the expectoration *totally ceased*, and I pronounced my patient convalescent. Porter, wine, arrow-root, &c. had been allowed him for the last ten days. The disease left him extremely emaciated; and in ten days after he was able to get out for the benefit of the air, he manifested symptoms of anasarca, which at length laid him up in a month after I had ceased my attendance on him for phthisis. Rest, and mist. ferri comp., with the blue pill, ultimately restored him, and he is now quite well, nearly five months after the primary attack. He will resume his occupation as a gardener in a few days.

This is a case, which, when considered with attention, and duly reflected on, must throw great light on the nature, properties, and modus operandi of the foxglove; it gradually and silently sunk the vigour and abated the force of the whole system, but most conspicuously so that of the vascular; the pulse fell in a few days from upwards of 100 to 40, and was retained in a state of depression, considering the constitutional strength of the patient, and his previous habits, until every symptom of phthisis had wholly disappeared — this being a disease having principally for its basis, irritation, and a preternaturally increased velocity of the circulation, ultimately inducing peculiar local affection, which, by constant attrition, exhausts the sensorial power,

and wears down the constitution. The morbid catenation of associated symptoms once destroyed, or, in other words, the overplus of preternatural action in the minute and secretory vessels of the lungs once reduced to the healthy standard, the system still continuing under the powerful influence and sedative effects of the medicine, a disease of diminished excitement, the reverse of the former, that is, dropsy became the consequence, which, in its turn, yielded to the stimulating and invigorating powers of the steel with diuretics.

A Mr. Barker, aged thirty, in the last stage of confirmed phthisis, who came to this place for the benefit of *change*, sent for me. His emaciation was extreme, and consequent debility very great. He was expectorating a pint of matter daily, mixed with some pus, this perhaps being one-fourth the quantity expectorated. Pulse 120. About a week after his arrival, his strength failed him, and he was obliged to keep his bed; for he had kept up struggling with the disease, which appeared to have made dreadful ravages in his system, until he could not stand. Willing to try the digitalis in this case, I commenced with forty minims, and in the course of a week, he actually took the astonishing dose of *one hundred drops* three times in twenty-four hours, without its producing the least effect on the pulse. Diarrhœa followed the use of the medicine, which I checked with laudanum, but I was unable to subdue it. A considerable decrease of the expectoration, however, took place; but I cannot be certain that this was the effect of the digitalis, as death closed the scene in a fortnight after I commenced my attendance, and an examination *post mortem* was not permitted me.

This is an instance wherein the digitalis did not produce any effect on the pulse. That this is likely often to occur, I have no doubt; and I may venture to affirm, from the consideration I have given to the subject, and the experience I have had in it, that, whenever the foxglove fails in producing an intermittent pulse, the patient will derive no benefit whatever from its use, and the case becomes inevitably fatal.

In maturely weighing the facts and circumstances here adduced, I am inclined to impute the salutary influence exerted by the digitalis over phthisis, to its widely diffusing property of diminishing morbid excitement throughout the animal economy, and not to any peculiar specific power it possesses of promoting absorption, either general or local, which is supposed by some to be its *modus operandi* in the cure of dropsy and phthisis; for it appears contrary to

reasoning drawn from the known laws of the animal economy, that a medicine which so forcibly retards the motion of the heart and arteries, should at the same time increase that of the absorbent system, a consequence that must necessarily take place in order that fluids deposited in the different cells and cavities of the body be removed. It is not, then, the rapid absorption of secreted and aërated pus from the surface of diseased parts, on which the cure of phthisis depends, but on the diminution and total extinction of morbidly increased action in the extremities of the pulmonic vessels, thereby cutting off the sole source and cause of secretion, which, when once effected, the disease ceases to exist. This opinion is still farther corroborated, when it is recollected, that, in the case of Mr. Barker, wherein the tincture failed of effecting a reduction of the pulse, no amendment followed its use. It is of great consequence, that the properties of this medicine should be accurately defined, as the cautious and timid Practitioner, and those whose sphere of practice is limited to few opportunities of trying the effects of new or doubtful remedies, must wait the decision of the question with an impatience and solicitude proportioned to the weight and importance of the subject.

The tincture of digitalis which I used was made according to the Pharmacopœia, and from a pint of spirit I obtained, by *pressing*, eight ounces; the leaves absorbed the difference. This preparation is, in appearance, nearly opaque, and possesses the flavour of the leaves in a high degree. The leaves of which I made it were gathered last autumn, and were hardly dry when used.

I cannot conclude this paper more satisfactorily to myself than by quoting the words of a very able writer on the subject of phthisis, who says, when observing on the diagnosis of scrofulous, and sui generis cases of consumption (if I may be allowed the term): "In the latter there is a peculiarity in the cast and character of features which is very striking. Instead of that sensibility which enlivens the scrofulous countenance, and that sanguine disposition which sees, even in the most unfavourable symptoms, a prospect of amendment, we find a stiffness in all the motions of the features and of the whole body, which is always in a very erect posture. The patient frequently anticipates his doom with a languor and complacency, if possible, more affecting than the unfounded hopes of the other victim. When we are satisfied that this is the disease, we may, I think, without change of climate, always ensure success, at least as long as the appetite for food continues." I subscribe most readily to this opinion, having met with the case

alluded to; in fact, I have one at this time under treatment with foxglove, which accords exactly with the above description of Mr. Abernethy.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Fauna, Flora, and Pomona, kept at Hartfield, near Tunbridge Wells. By Dr. T. Forster. *From the 1st to the 31st of May*, 1821.

May 1st.—Fine warm weather. The Peony coming into flower. Swallows still rather scarce. *Papaver Cambricum* just in flower at Hartwell.

3d.—Stocks in flower in the gardens. Tulips now in full blow. *Chærophyllum sylvestre* in flower in the fields. The Wryneck (*Iynx Torquilla*) is arrived, and heard daily.

This season is, in many respects, backward; in others, by no means so. The leaves are less forward on the trees than usual; but the flowering of plants has occurred at the usual period. Those local abscesses, called *Furunculus* and *Anthrax*, are said to be very common this spring.

10th.—Returning home through Croydon, I first observed Martins (*Hirundines urbicæ*); but it is probable they have appeared ten days or a fortnight ago, though not noticed by me. *Senecio squalidus* in full flower.

11th.—*Hieracium Pilosella* and *Papaver Cambricum* in full flower. The *Tragopogon porrifolius* in my garden this year is destroyed by a chocolate-coloured fungus occupying the place of the blossom. *Narcissus poeticus* and *N. biflorus* still in blow.

13th.—*Iris lurida* and *Convallaria majalis* in flower.

14th.—The Swift (*Hirundo apus*) first seen. *Hypochaeris radicata* in flower.

15th.—*Hieracium murorum* in flower at Cowden.

17th.—A day of rain. Martins and Swallows fly low, and skim about the pond. *Senecio squalidus* in full flower. This plant has become quite a numerous weed in my garden. It is found wild no where in Britain, except the walls about Oxford.

18th.—I noticed to-day the Sand Martins very plentiful about their nests in the sand banks above Withyham. *Chrysanthemum Leucanthemum* just in flower. A few fungi appear after the wet weather.

19th.—*Tragopogon porrifolius* in flower to-day. The meadows are now bespangled with Crow's Foot and blue; in other places with the wild Hyacinth. The banks covered

with that beautiful little plant *Veronica Chamædrys*. Tulips begin to fade, beside which, numbers have been destroyed by the late hail. The young starlings are already fledged.

20th.—*Hesperis inodora* and *Potentilla reptans* in flower.

21st.—The banks seem beautifully ornamented with Speedwell, Herb Robert, and Stitchwort. Cool easterly wind producing an imperfect perception of distant objects*.

23d.—Cold N. E. wind, with clouds and some rain. The progress of vegetation seems retarded.

24th.—Natalis Linnæi.—The weather cold and unseasonable, and vegetation quite at a stand.

26th.—Cold N. W. wind, and hail shower. The thermometer, at ten P. M., thirty-seven degrees. The common Peony just in flower. The *Peonia tenuifolia* has finished flowering. *Aquilegia vulgaris* in full flower. The poppies are hardly up yet, and are at least a fortnight later than last year.

27th.—We experienced to-day a most extraordinary degree of cold for the time of year. During the fall of a shower of sleet, the Thermometer fell to thirty-nine degrees of Fahrenheit at two o'clock in the afternoon. The germination of plants seems quite suspended; the last week having produced no ostensible alteration in the gardens and fields. The *Agapanthus umbellatus*, which lived through last winter in the open ground, seems to suffer much from the frosty nights. The Crow's Foot, the Harebell, and other field flowers, do not show their wonted brilliancy.

31st.—Sharp easterly wind to-day, nothing seems to grow.

Since my residence in this neighbourhood, I have had

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* Whether this phenomenon arises from some particular state of the atmosphere alone, or whether the very imperfect perception of distant objects which attends easterly winds often when the air seems clear, do not arise partly from the state of the eye, is a question I never could clearly discover. It is certain, that the east wind is proverbially unwholesome in every known climate. In nervous and irritable patients, even in this country, it produces headach, languor, and listlessness. Many persons can positively pronounce a change of wind to exist by waking in the night with uncomfortable feelings. And the eyes and organs of the brain are much affected by it. All these circumstances tend to the belief, that the obscure vision of objects at a distance above alluded to, may partly arise from a nervous affection of the eyes; while it is also certain, that in the clearest starlight nights, correct astronomical observations cannot be made, if the wind be east; there being a wavy undulating apparent motion in the star under contemplation.

occasion to notice the prevalence of cancerous and other violent diseases in a much greater proportion to the population than I have noticed them in any other parts of England. Diseases, also, marked by determination of blood to the head, seem to be very common among the labouring classes in this part of the country. Can this be in part produced by the climate, soil, and water?

[*This Journal is to be continued in the neighbourhood of Tunbridge Wells.*]

PART II.

ANALYTICAL REVIEW.

I.

Numerous Cases illustrative of the Efficacy of the Hydrocyanic or Prussic Acid in Affections of the Stomach; with a Report upon its Powers in Pectoral and other Diseases in which it has been already recommended; and some Facts respecting the Necessity of varying the Doses of Medicines according to Circumstances, and the Use of Opium in Diabetes. By JOHN ELLIOTSON, M. D., &c. &c. London. Burgess and Hill. 1820. 8vo. pp. 107.

An Historical and Practical Treatise on the Internal Use of the Hydrocyanic (Prussic) Acid in Pulmonary Consumption, and other Diseases of the Chest; as well as in several Complaints attended by great Nervous Irritation, or acute Pain; with full Directions for the Preparation and Administration of that Medicine; and a Preliminary Descriptive Account of the Principal Diseases in which it has been employed. Illustrated by numerous Cases. Second Edition, greatly enlarged. By A. B. GRANVILLE, M.D. F.R.S. F.L.S. M.R.I. Physician in Ordinary to H.R.H. the Duke of Clarence; Member of the Royal College of Physicians in London; Principal Physician to the Royal Infirmary for the Diseases of Children; Physician-Accoucheur to the Westminster General Dispensary, &c. &c. &c. London. Longman, and Co. 1820. 12mo. pp. 417.

WE stated, in the last Number, our intention of bringing these works shortly before our critical bar, and of judging them impartially, according to their respective merits. This pledge we now propose to redeem, and in the same spirit

with which it was first made. We are not among those who "always smile on hearing of the smallest medical novelty, as though knowledge happened to be exactly at its height when they were students." We trust we shall rather be numbered among "those who believe that medicine is an improvable art; and that, with a proper foundation of anatomy, physiology, and medical reading, a little zeal will enable the humblest abilities to contribute facts to the general stock of knowledge*."

For many years past, we have heard a great deal about Prussic acid, and its virtues in the treatment of disease; but we confess we had never sufficient zeal or even the common curiosity to read the works placed at the head of this article, until we entered upon our present task. The fact is, we were never encouraged to do so by the reports of those among our friends who had read the books, and tried the remedy, and on whose judgment we could place an almost implicit reliance. They concurred for the most part, in declaring, that in the doses in which it was recommended, the Prussic acid might be taken like so much cold water—that it did neither good nor harm. It may be a matter of surprise to both the authors whose works we are to notice, when we declare that we have no personal experience whatever in the remedy which they undertake to recommend. We are fully persuaded, indeed, that the Prussic acid, and the different substances containing it, "are capable of producing the most baneful effects when immoderately taken†:" but this proves nothing as to any power which the drug may possess of *combating disease*. Arsenic, and the muriate of baryta, are both, like Prussic acid, violent *poisons;* but the one is possessed of great medicinal efficacy, and the other of scarcely any. Experience alone, therefore, can be trusted to for determining this point; and we can assure our readers, that we sat down to the perusal of the volumes before us without any prejudices either for or against the medicine. We do not, indeed, pretend to any of that "warm sentiment of interest for its success‡" which, we are informed, is now excited among the medical Profession of this country; but we do not concur in the opinion of that Physician of *great eminence*‖, who denies, *prima facie*, that it can have any beneficial influence. We are content to judge of its claims by "the facts only which our authors have recorded."

It had long ago been ascertained, that the lauro-cerasus, and bitter almonds, and other substances, now known to contain

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* Elliotson's preface. † Granville, page 33.
‡ Granville, page 1. ‖ Ibid. page 194.

Prussic acid, were deleterious in large quantities; and it had been conjectured, that they might prove useful in the treatment of disease; but for the first employment of the pure Prussic acid, the world is indebted to two Italian Physicians, Brera and Borda, whose respective claims Dr. Granville is careful to record*. The first introduction of it into this country is unquestionably due to Dr. Granville; and we were disappointed by not seeing this openly acknowledged in Dr. Elliotson's short sketch of the history of Prussic acid. With no part of the former gentleman's volume, indeed, were we more satisfied, than where he announces this fact.

"1815. Dr. Granville is the first to call the attention of the medical Profession in England to the subject of the Prussic acid, as a remedy in inflammatory and other diseases of the chest. No public notice is taken of the subject for two years†."

"1819. Dr. Granville publishes the result of his practice in this country, with regard to the use of Prussic acid in cases of consumption and hooping cough; and extends its application to other complaints in which it had never been administered, such as asthma, sympathetic cough, spasmodic cough of pregnant women, acute pain attending abortion, &c. His work contains a chemical and medical history of the Prussic acid, with an account of the mode of preparing it, and prescribing it‡."

We are the more urged to avow Dr. Granville's claims to the honour of introducing this medicine to the notice of the British public, because, from particular circumstances, we are desirous to analyze Dr. Elliotson's work first; and it might have appeared invidious to have done so, without this previous acknowledgment. Our readers will see, by examining the title page of Dr. E.'s work, that it is not exclusively devoted to the consideration of Prussic acid. In fact, only the first half of it is so occupied, and it is with this we propose to deal at present. From the very cursory survey which we took of the remainder of the volume, we are inclined to think very favourably of it; but it would be out of place to enter into any details concerning it here.

The principal object of Dr. Elliotson is to show, that the Prussic acid possesses a remarkable power over affections of the stomach. It appears, he says, (page 36) to operate *specifically* upon the stomach; and this he attempts to prove, by detailing the results of an immense number of cases in which this medicine was employed, under his own immediate superintendance. He divides them into six sets or classes. The first are intended to show the power

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* Granville, page 105. † Ibid. page 125. ‡ Ibid. page 126.

which Prussic acid enjoys of relieving pain about the pit of the stomach. The next exhibit the relief afforded by this medicine in a variety of other symptoms connected with pain of the stomach, such as flatulence, giddiness, pain of the head, lowness of spirits, tightness at the pit of the stomach, trembling. The third set of cases show that, where pain is combined with a discharge of fluid into the mouth in pyrosis, the Prussic acid is eminently serviceable. The fourth set are instances of the utility of the same medicine where excessive irritability of the stomach produces vomiting. The fifth set of cases are introduced, lest any one should account for the relief so obtained by supposing that the magnesia, and the compound extract of colocynth, and the syrup of buckthorn, which were given at the same time, had as much to do with the cure as the g^{tt}. j. ter die of hydrocyanic acid. Five cases are detailed, with rather more minuteness than usual, to show the groundlessness of this suspicion*. The last class of Dr. Elliotson's cases include affections of the stomach, resembling, in many of the symptoms, angina pectoris. In these, great relief, and even a permanent cure were obtained by the administration of Prussic acid. This success induced the author to attempt relieving the acute pains which occasionally occur in genuine diseases of the heart by similar means; and his experience induces him to state, (page 32,) that the hydrocyanic acid may certainly be used with advantage to mitigate the sufferings which attend angina pectoris.

Upon a review of all his cases, Dr. Elliotson expresses himself convinced of the peculiar powers of this medicine in disordered functions of the stomach. He states it to be "superior to every other remedy in tranquillizing the stomach, and exactly what has always been a desideratum for affections of that organ†." We confess, after attentively perusing these cases, that we are not equally satisfied. We recollect reading exactly the same thing, a few years ago, when the oxyd of bismuth came into fashion. But, laying something to the score of inaccurate observation, and something to the pardonable prejudices of an author, who, in spite of his own good humoured disclaimer, (page 47,) can evidently ride a hobby as well as others, still enough will remain to show, that this medicine does possess some degree of power over the diseases of the stomach, and we are even disposed to acknowledge that it may be tried with some prospect of advantage in the structural diseases of the heart.

Dr. Elliotson goes on to state, that in his hands it has

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* Elliotson, page 23. † Ibid. page 33.

always proved useless when exhibited in inflammatory states of the system. He acknowledges the efficacy of the medicine in hooping cough, simple dry cough, spasmodic asthma, and, in fact, in all coughs where there is no inflammatory diathesis present, or where the cough is out of proportion to the inflammation. He affirms that it is useless, as a general narcotic or anodyne, never relieving pain directly, except that about the epigastrium, and he therefore feels inclined "to attribute some of the benefit of the Prussic acid in spasmodic affections of the chest partly to its effect upon the stomach alone, and partly to the communication of these soothing effects from the stomach to the organs of respiration, with which it holds so close a sympathy*." In consumption, Dr. Elliotson has employed the Prussic acid, both at the very commencement and in the advanced stages; and "he fears it must be added to the list of medicines which have been fruitlessly tried to cure the disease."

Such are the conclusions to which Dr. Elliotson has come, after a very ample trial of this remedy; and we think the public are indebted to him for the details which he has communicated. That he has over-rated the virtues of the medicine, we cannot bring ourselves to doubt; but he states his opinions very modestly, and if he *has* erred, it is as many great and learned men have erred before him.

We now propose to direct the attention of our readers to Dr. Granville's work, which they will observe to be a *second edition, greatly enlarged.* The additions made to it consist chiefly of "fresh evidence" of the powers of Prussic acid; and so much importance does the author attach to this *fresh evidence,* that he inquires, (page 130) whether a critic, who had sneeringly compared the Prussic acid to Solomon's balm of Gilead, will retract his hasty decision, or persevere in his error. What this critic will do, we cannot say with any degree of certainty; but we have a shrewd suspicion that he will prefer the latter alternative—our reasons for which will appear in the sequel.

The first sections of Dr. Granville's work are occupied with chemical details regarding the hydrocyanic acid. With these we have no intention of meddling here, except in so far as may be necessary to explain to our readers the risk which we run in the task which we have now imposed upon ourselves. The chemical part of Dr. Granville's treatise was lately reviewed in the Journal of Science and the Arts, edited at the Royal Institution, and the review not being to Dr. G.'s mind, a blue pamphlet, stamped "Dr. Granville's

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* Elliotson, page 48.

Reply," was distributed with a most liberal hand over the whole town, in which the artillery of mathematical demonstration was brought to bear on the unfortunate reviewer, whose inward pangs must, doubtless, frequently have reminded him of his ill-chosen signature*. As we cannot be sure whether our remarks may not be equally at variance with the author's views, so we must prepare *ourselves* for a similar visitation; and we have considered maturely what signature we should adopt. At length we decided upon assuming S as our distinguishing letter, for reasons which it is unnecessary for us to state in detail.

It appears, from a note in page 134, that the author is at least as well prepared for attack as we are for reply. He ventures to predict, that as soon as the present edition shall have fallen into the hands of the Editor of the Medical Repository, the public will most probably be favoured with remarks on the "wretched style," "defective language," "want of method," "inaccuracy of description," of the present work. Now, though we might, if so disposed, cavil with the want of method, and the inaccurate descriptions which we occasionally noticed, yet, certainly we have no intention of finding much fault with the style, or the language. Considering that Dr. Granville is a foreigner, we really think both very excellent. We are well satisfied, that there are very few, if any, English Physicians who can write Italian with equal purity. There are instances, indeed, to be met with of a want of "literary polish," (page 196) but so trifling as hardly to deserve notice. Thus, in page 274, where we read as follows: "No bad consequence could result, and none, therefore, occurred, with regard to the particular situation in which she was placed." In page 64, speaking of the utility of hydrocyanic acid in hooping cough, Dr. Granville states, that *it seldom failed in almost every case*†. There are some instances, too, of what we have been taught to consider bad taste, as in page 257, where he talks of "a child lying down to rest in perfect health, the

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* O ——. If any of our country readers should wish to be supplied with this pamphlet, we believe they may be gratified by an early application, as we saw, a few days ago only, several unappropriated copies!

† Lower down in the same page, he mentions "a species of inflammation of the lungs which is produced by violence or hurts." (Query, What are hurts in contradistinction to violence?) We do not thoroughly understand the meaning of a passage in page 63, where it is stated, that "in sympathetic cough, the patient, under the use of Prussic acid, *finally* experiences a degree of relief which is always proportionate to the state of the part affected."

pride and love of his fond mother, from whom he had snatched a parting embrace, in high spirits, at the approach of evening," and then waking suddenly with the croup. The finest specimen, however, of this *fine* writing is to be met with in page 55; and really this passage deserves to be quoted, as well from the merits of the composition, as from the curious facts which it notices regarding the action of the Prussic acid on the animal body. We give the quotation exactly as we find it, taking the liberty only of putting in italics those passages to which we *particularly* desire to call the attention of our readers: —

"The Prussic acid, when administered to a patient *labouring under a disease of vascular or other excitement*, appears to exert an immediate influence upon the nervous system. It gradually diminishes all irritability, checks a too rapid circulation, and calms many of the symptoms of fever. If a dry cough be present, it promotes expectoration, in the first instance, and subsequently stops the cough itself. The spirits, before exalted, soon feel the quieting impression of the acid; they become subdued; the speech, the countenance, even the expression of the eyes, *assume a character of unusual meekness;* there is a relief from pain and actual suffering. The patient feels it, and is grateful: sleep comes on undisturbed; respiration is soft; and the pulse more tranquil than at any other period of the complaint, having lost the throbbing beat of irritation. In some few cases, these sedative effects are so much more considerable, that the patient expresses himself as if only "*half alive.*" On those occasions, there is an *apparent* entire prostration of strength, great lowness of spirits, and unwillingness to move, speak, or take food; life seems suspended, yet the head and mind remain clear and intelligent; there is a total absence of pain; neither does the patient complain of any symptom of local or general irritation; the heat of the skin is natural, and the pulse, in the midst of this dead suspense, continues its course steadily and quietly. This state of things lasts from twelve to twenty-four hours, when it ceases; and every organ is gradually restored to its former integrity of function."—Pages 54 and 55.

Upon this exquisite specimen of fine writing, we have two remarks to offer. 1. It does appear to us singular, considering these symptoms were witnessed in a patient *labouring under a disease of vascular or other excitement*, that every organ should at last be gradually restored to its former *integrity* of function. We looked (as Dr. G. had bid O do,) into the ERRATA CORRIGE, expecting to find

Page 56, line 8, *for* integrity, *read* irregularity;

but we were disappointed; and, therefore, if we are hereafter favoured with a blue pamphlet, we should like to know

whether our *varia lectio* is satisfactory to the author*. 2. We would, in the next place, wish to express our hope, that the UNUSUAL MEEKNESS which characterizes the speech and eyes of those who take Prussic acid, extends also to the spirit. If it does, we can recommend an occasional dose to the learned editors of a cotemporary journal, which disseminates monthly *intelligence* in this town; nay, we do not know but that we may be tempted to take a few drops ourselves (under proper management); but of this more hereafter.

A more serious charge, however, than that of bad taste, remains to be brought, before we can come to the consideration of the author's pathological and therapeutical speculations. We regret that on this occasion we are compelled to lay aside that light tone, in which we had hoped to begin and end this article. Our readers shall judge whether we are warranted in thus expressing ourselves: —

"To be serious: I hope that the day will never arise when these bold experimental results of hospital or dispensary practice, in which no responsibility attaches to the experimentor acting upon patients, who 'were not seen afterwards,' who 'were lost sight of,' or who 'were seen no more,' ere they were cured — will be assumed as examples for our conduct in private practice. It is one thing to prescribe in the presence of a few admiring pupils, for a patient, who, when admitted within the walls of an hospital, or on the registers of a dispensary, seems to surrender every right to complain and be dissatisfied; and another to treat a disease occurring within the bosom of an anxiously watching family, whose every look and question are directed to ascertain the Physician's sound judgment, and mature personal experience. It is this sort of fearful responsibility attached to the latter situation, more than any which may belong to the office of a Physician in public practice, which tempers the high-mettled fancy of a youthful schemer into the sober mindfulness of a rational Practitioner."—Page 303.

Now we say that this paragraph contains insinuations against the character, both of the senior and junior members of the Profession in this town, which we conscientiously believe to be unfounded. We know a good deal of the pupils attending our hospitals and dispensaries, and we believe them to be quite as much disposed to *criticize* as to *admire*. We only wonder, indeed, how Dr. Granville should have contrived to form so different an estimate of them; and can account for

* We throw out this suggestion in the true spirit of annotators on obscure passages, not because the word tallies exactly with the context, but because, by a little stretch of imagination, it may be supposed that the printer had mistaken it.

it only, by *supposing* that in the institutions to which he belongs, he has not been much among them. This, however, is mere supposition, and perhaps an uncharitable one. If we find ourselves mistaken in it, we must be contented with setting the thing down as a very singular anomaly. In a similar manner, we are at a loss to comprehend how Dr. Granville ever brought himself to believe, that hospital and dispensary patients *seem* to surrender every right to complain and be dissatisfied. They neither do so, nor *seem* to do so, as the apothecary, matron, nay, very often the physicians themselves, of most of our public charities, can most amply testify. We were the more surprised at this statement of Dr. G., because neither in the context, nor in any note, can we find any exception made in favour of the Westminster General Dispensary, or of the Royal Metropolitan Infirmary for diseases of children, to the former of which Dr. G. is physician accoucheur, and to the latter *principal* physician, (as per title page). If Dr. Granville's information is derived from *those* sources, it must, of course, be correct; and we can only express our extreme regret, that the genuine right of an Englishman to complain is *there* denied.

We do not believe that many Physicians in this country will bear Dr. Granville out in his statement, and the feeling that prevails abroad on this subject may be gathered from the following fact, which we stumbled upon yesterday in a very entertaining publication,—The Percy Anecdotes.

"M. Boudon, an eminent Surgeon, was one day sent for by the cardinal Du Bois, prime minister of France, to perform a very serious operation upon him. The cardinal, on seeing him enter the room, said to him, 'You must not expect to treat me in the same rough manner as you treat your poor miserable wretches at the Hôtel Dieu.' 'My Lord,' replied M. Boudon, with great dignity, 'every one of those miserable wretches, as your Eminence is pleased to call them, is a prime minister in my eyes.'

A sentiment of this kind is what we should have expected from Dr. Granville. We had always been taught that the *true* school of responsibility was the bedside of an hospital patient, where the Physician prescribes, not, as Dr. Granville says, in the presence of admiring pupils, but in the presence of those whose education and habits of life qualify them to form a judgment of the propriety of the practice adopted, where the prescriptions are recorded, and where no artifice can serve, for any length of time, to cloke ignorance and presumption. But that Dr. Granville may not take this altogether upon our word, we would request him to ask from some of those "anxiously-watching" fathers and mothers among whom Dr. G. deservedly enjoys such confidence, whether

that confidence has not been derived, in a great measure, from the conviction that he had profited, and was still daily profiting, by his experience at hospitals and dispensaries, "among patients who *seem* to surrender their right to complain, and be dissatisfied." We shall hope in due time to be favoured with their reply in the blue pamphlet, No. 2; but lest we may be considered as laying a trap for Dr. Granville, we would wish to refresh his memory by a notice of the opinions he held on this subject so lately as the year 1819. For this purpose we extract two passages from Dr. Granville's "*Reports on the Midwifery Practice at the Westminster General Dispensary,*" published in that year.

At page 1, we read thus:

"Dispensaries may justly be ranked amongst the most useful of the charitable institutions, established for the relief of suffering humanity."

We are sure that *one* class of persons who apply for relief at dispensaries, have at least no right to complain, (we mean pregnant women,) because Dr. Granville expressly says, (page 14,)

"That with the exception of a single matter of form, namely, that of entering on the register the letter of recommendation from a governor, the assistance which the lying-in woman obtains from a dispensary differs in nothing from what she could command by money in private practice."

What can have occurred toward the close of 1819, or the beginning of 1820, to cause this singular change in Dr. Granville's opinion about dispensaries?

And now we arrive at the physiological and therapeutical speculations of Dr. Granville. He treats, first, of the analogy which led to the use of Prussic acid in medicine; and here we learn, that it possesses the property of extinguishing the general sensibility without any ostensible injury to respiration and circulation. This *very naturally* led to the employment of it, as a medicine, in all cases of what is generally called irritability, but what Dr. Granville more correctly calls *vicious augmentation of sensibility**. But the kind of *analogical reasoning* which is employed to show that it might be beneficially used in cases of *inflammation*, is of a much more ingenious kind. It runs thus:

"But as the Prussic acid *is said*," (query, by whom?) "to exert considerable influence over the arterial system, and little or none over the venous circulation, it might likewise be inferred, that in cases of inflammation the acid might be employed with the most beneficial results†."

* Page 47. † Page 48.

The merit of this reasoning, (which, by the apposition of the words PROOF and COROLLARY*, might almost be called mathematical,) belongs to professor Brera, (the father of Prussic acid); but we presume that it has received the sanction of Dr. Granville, from the kind of notice which he takes of it. We should hardly have considered the thing worth mentioning, except it was, partly to show the kind of foundation upon which the whole superstructure has been raised, and partly to give some support to our own suspicions, that Dr. Granville has erred in his notions of "the *flourishing state* to which he assures us the materia medica has happily arrived at the present moment†." We have long entertained the idea, that no better reply could be given to those who are continually vaunting forth the praises of the present age, its freedom from prejudices, &c. than simply referring them to some of our late lucubrations on nitric acid baths, and Prussic acid mixtures. They will prove, we think, pretty satisfactorily, to posterity, that we possess quite as much credulity, and not a whit less vanity than our worthy progenitors, who were as solicitous about their bezoar and millipedes, as Dr. Granville can possibly be about prussic acid and caraway water.

In reading carefully the seventy-nine cases which Dr. Granville has published, (the old and the *fresh* evidence of the value of Prussic acid,) we were struck by the circumstance of its being frequently prescribed where there was no very obvious indication of its necessity. Case sixty-three is of this description. A woman, of the name of Eliz. Britton, miscarried, and suffered excruciating pains for several hours afterwards. Flooding came on, and on examining what had come away, Dr. G. discovered a fœtus of about three months' growth. The rest of the case we give in Dr. Granville's own words.

"The placenta was not to be seen; there were only a few compact coagula present. The patient was in other respects well, and the miscarriage she attributed to a fright, in consequence of some people quarrelling in the same house. I made an examination, and ascertained that the os uteri was still dilated. Conceiving that the pain arose from the uterine contractions directed to the expulsion of a retained placenta, and coagulated blood, I administered a brisk purge, and desired her to take two table-spoonfuls of the hydrocyanic mixture, No. 9. On the following day, I was informed that she had expelled what was considered the after-birth, together with several *lumps*, &c. — that the pain seemed to diminish immediately after, but that it had not wholly disappeared until she had taken the whole bottle of the mixture in the course of the night‡."

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* Vide Dr. Granville's "Reply," *passim*.

† Page 43. ‡ Page 343.

We should like to ask Dr. Granville what he thinks would have become of this woman, not in the hands of a different Practitioner, but in his own, before the light of Prussic acid broke upon him. A still more remarkable instance of the same thing is to be found at page 348, Case 68. Mrs. T. was bit by a dog in the street, and the wound, which was in the thigh, was considerable. The dog, to use Dr. Granville's own words, "resumed his hasty career, and, in the confusion of the moment, escaped detention." Dr. Granville was hastily summoned as the *nearest* Physician. After doing the needful in regard to the wound, he prescribed the hydrocyanic acid, for what purpose we are left to conjecture, for the patient's mind was quieted, and her fears dissipated, by the active local measures which had been pursued. The lady recovered, and Dr. Granville proceeds to comment on the case. He states (page 353) that he is not disposed to call this a case of hydrophobia, but puts the following queries:— Whether the accident, if left to itself, would have led to that complaint?—And if so, what prevented such a result?— The early application of caustic ammonia to the part, or the internal use of the hydrocyanic acid, or both?— We were gratified by finding so good a use made of the case, and particularly pleased that no attempt had been made to call it hydrophobia. We reckoned without our host however. The case was not let off so easily. In the table of contents, page xvi., line ten from the bottom, this very case will be found designated as one of hydrophobia, without even a ? added.

Part II. of Dr. Granville's work contains a descriptive account of the various complaints in which the Prussic acid has been administered as a medicine, with cases and prescriptions. We might almost refer our readers at once to the last edition of Dr. Cullen's Nosology, or to Dr. Granville's own Synopsis; but the impression which that might give them would be feeble in comparison of what they will receive from seeing these several diseases enumerated in detail. They are, consumption, incipient and confirmed; consumption subsequent to catarrh, pneumonia, pleurisy, bronchitis, and hæmoptysis; consumption during pregnancy, after parturition, after long suckling, and at the period of ablactation; inflammatory complaints of several kinds, pneumonia, pleurisy, croup, inflammation of the diaphragm, and metritis; catarrh; dry and spasmodic coughs, whether occurring in adults or in children; sympathetic coughs, whether arising from curable or incurable diseases, as from hepatic disease, disease of the stomach, suppressed menstruation, and menespausia; hectic cough after abortion, from diseased ovarium, or after inflammation of the brain;—(we must take breath;)—

hooping cough, spasmodic asthma, hæmoptysis, uterine hæmorrhage, abortion, our old acquaintance the hydrophobia, syncope anginosa, cephalic neuralgia, epilepsy, spermorrhæa, cardialgia, spasmodic colic, gouty dyspepsia, gastrodynia, and common dyspepsia.

Now, it is not that Prussic acid was merely *tried* in all these diseases, but in almost the whole of them it did some good. We have divided the seventy-nine cases into five classes. The first includes those where the Prussic acid prevented disease. The second, where it actually cured the disease. The third, where it was found "a powerful auxiliary in restoring the standard of health." The fourth, where, though it could not cure, it could palliate the symptoms. The fifth is a very small class, including only those which the Prussic acid could neither cure nor relieve, but in which it might be given without doing any harm.

Before going further, we cannot avoid expressing our surprise at the very small number of cases recorded in this volume, in which any bad effects appeared; and this more especially when we consider the acknowledged deleterious property of the medicine in over-doses. Every where we read of the great necessity that exists for giving the medicine with great caution, and under the eye of experienced Physicians, but no where can we find any cases which may put us on our guard against the danger, except indeed at page 94, where we read of a lady who took *frequent* potations of hot brandy and water, which happily succeeded in removing the alarming symptoms,—but their exact nature is not described.

"It must be acknowledged, at the same time, that great care is requisite on the part of the Physician who prescribes it—that it requires to be watched—and that, in fact, such degree of attention and vigilance is necessary in its administration, as can only be duly appreciated by a Practitioner, whom experience has rendered fully aware of every effect which this powerful remedy may produce on his patient."—Page 78.

After reading this sentence, we could not but turn back to that which precedes it, because it informs us,—

"That in the course of the practice of Professor Brera, Borda, Rasori, Bremer, Hufeland, Coullon, Magendie, Duvignau, Recamier, Lerminier, Thompson, Scudamore, and my own, as well as in that of many others, whom it would be tedious to mention, no *bad effect* has ever been observed to result from the action of the Prussic acid, given as will be mentioned hereafter."

From these two sentences, it follows, we think, almost as clearly as some of the corollaries in Dr. Granville's blue pamphlet, that Professor Brera, Borda, and others, whom it

would really be *very* tedious to mention a second time, (including of course Dr. G. himself,) were all rendered by experience *fully* aware of *every* effect which the Prussic acid may produce. This, to say the least of it, is a very modest confession. By what a monstrous consumption of Prussic acid must such an extended experience have been purchased? In fact, it is not calculable *on mathematical principles*, until we have more accurate information as to the numbers of those whom Dr. Granville found it so tedious to mention.

Dr. Granville appears to us to entertain some very singular pathological views regarding consumption. Nearly one hundred and twenty pages of the work are dedicated to the consideration of consumption, and the employment of Prussic acid for its relief or permanent cure. It is obviously a great object with Dr. Granville to establish the claims of Prussic acid to the character of a powerful remedy in this disease. His fundamental distinction is into consumption owing to a peculiar formation of the chest, and probably of the lungs, and consumption owing to a vitiated state of the animal fluids, &c. We do not any where distinctly recognize the commonly received division into tuberculous and bronchial; nor does the author appear to us to be aware, (or if he is, he does not express it,) that Physicians, when they talk about the danger and mortality of consumption, mean always genuine tubercular consumption. Case 26 may be taken as a good specimen of the author's ideas about *consumption.* A woman was in the eighth month of pregnancy. She became feverish about the 20th of January, 1819, and was safely delivered on the 24th of March. During this interval, cough came on, and she got some hectic symptoms. Dr. G. now considered that the disease had assumed a decided character, and that character *seemed* to indicate phthisis. As such, it is registered, without any reference, however, to the qualifying word *seemed,* of which, by the by, we before found the author making a similar use. Now we have no objection to Dr. Granville calling this consumption, as he called the case of Mrs. T. hydrophobia, if he chooses; but we do very strongly object to his afterwards using the word in the more limited sense in which the generality of Physicians employ it, and frightening us out of our lives, by saying (page 128) that of "four such cases, one is marked for destruction;" (for in this passage Dr. G. makes no exception). Our firm persuasion is, that four-and-twenty such cases might meet together, and without a single drop of Prussic acid, the whole would terminate in the same favourable manner as the case of Mrs. Ann Gordon just quoted.

It certainly cannot be altogether uninteresting to compare the views of Dr. Granville and Dr. Elliotson, regarding the powers of Prussic acid. For this purpose we shall select two passages, which seem eminently qualified to illustrate each other.

Dr. Granville states (page 217) that —

"Cases of advanced bronchitis simulating consumption, and of hæmoptysis followed by that disease, have also occurred in my practice, in all of which the Prussic acid was employed with success; and I would beg leave to call the attention of Dr. Hastings to the power which I have fully shown the acid to possess in subduing inflammatory diseases of membranes, as well as of parenchymatous substances."

Dr. Elliotson, on the other hand, states (page 45) that as far as the diseases of the chest are inflammatory, the hydrocyanic acid has disappointed his expectations.

"Professor Brera," adds Dr. Elliotson, "highly extols it in *pneumonia**; and, probably, if exhibited in doses sufficient to lay the whole strength of the body prostrate, it may be very serviceable: but I confess that of all the inflammatory cases in which I have employed it, although even to sickness, I do not recollect one in which the abstraction of a single ounce of blood, or the exhibition of a single grain of calomel, was rendered less necessary by it."

"What are we to think of this jarring evidence?" says Dr. Granville (page 195) on a similar occasion. "Nothing but that the evidence itself ought to be still farther multiplied." This is Dr. Granville's corollary: ours is very different — viz. that we have had quite enough of the Prussic acid, and that it is time we were thinking of drawing this article to a close.

The last section of Dr. Granville's work treats of the mode of prescribing the Prussic acid, and gives twelve specimens of formulæ. We were not a little surprised on reading over the latter, and comparing them with the rules laid down in the first part of the section, to find a remarkable discrepancy between them. We are told, (page 404,) "That it is indispensably necessary to use no other than distilled water in all prescriptions having the Prussic acid as one of their ingredients; or decomposition of the salts contained in common water and of the acid itself will take place." In open defiance of his own rule, he orders the dec. lichenis as the basis of his very first prescription, and afterwards the infusion of orange peel, and decoction of bark for ℞ No. 5, and No. 6. Dr. Granville must know that there is no direction in the pharmacopœia

* *Prospetti de' Risultamenti ottenuti nella Clinica Medica*, &c. p. 29. Padova. 1816.

to prepare any infusion or decoction with distilled water, and we can hardly suppose so good a chemist as Dr. Granville to have imagined, that the mere boiling of water, or the infusing a little orange rind in it, deprived it of those salts which act upon hydrocyanic acid.

We sincerely hope that Dr. G. has not frequently employed these formulæ; for if he has, we are bound to believe that he must have done a great deal of harm to his patients. He tells us himself, (page 405,) that "he has reason to think, where the hydrocyanic acid undergoes decomposition, the resulting new compounds, or the elements of the acid, (he has not yet ascertained which,) act as irritating substances on the stomach, and at times excite rather than depress the nervous energy." Under the circumstances of the case, we indulge the hope that Dr. Granville may, *perhaps*, have formed too alarming an idea of this danger.

As we have little doubt that, in spite of these terrors, some of our readers may feel an anxiety to try the effects of the new remedy, we shall conclude our extracts by the formula No. 10, which is remarkable on two accounts:—first, on account of the specific mention of the aqua fontis; and, secondly, on account of the singularity of the first ingredient, which, not being secundum pharmacopei*am* Londinen*sem*, we do not profess to be at all acquainted with.

No. 10.—℞. Siliqu. bignoniæ catalpæ cont. ℥ss.
Ebulliantur in s. q. aquæ fontis.
Colaturæ f℥viii. adde
Oxymellis Scillæ f℥i.
Acidi Hydrocyanici med. m. xx.
M. *Sumatur paulatim.*

The following curious addition must be made under certain circumstances:

"Where the prescriptions are sent to chemists or druggists who are strangers to the prescribing Practitioner, the following caution should be added to the formula:

"Excipiantur preparationes, cum acido hydrocyanico, lagunculis vitreis, crystallino obturaculo munitis, et charta nigricante circumplexis."

We think this will pretty effectually try the latinity of some of the apothecaries' apprentices in this town; but it will do them good, and add considerably to the sale of Ainsworth's Dictionary.

We have at length gone through our allotted task, keeping the blue pamphlet always before our eyes, *in terrorem*, and now must endeavour to make some set-off against all this pertness. Dr. Granville is a very clever man, and a man of science; but he seems to us sometimes to forget, that medicine is as

much a science as chemistry or mineralogy. When he treats a medical subject in a strictly scientific manner, he will find us ready to acknowledge his merits, though abundantly sensible that such an acknowledgment can be of little service to him.

We should neglect our duty, did we not add, that our readers may consult, with advantage, cases 23 and 25, in which the Prussic acid appeared to be really beneficial; the one a case of phthisis following pneumonia, and the other of phthisis trachealis. In the latter, the relief was immediate, though probably it would not prove permanent. In the former, it is sufficient to say that Mr. Clarke, of Saville Row, bears testimony to the excellent effects of the medicine.

II.

A Practical Treatise on the Diseases of the Eye. By John Vetch, M. D., &c. &c. London, 1820. 8vo. pp. 267.

A Synopsis of the Diseases of the Eye, and their Treatment, &c. By Benjamin Travers, F. R. S., &c. London, 1820. 8vo. pp. 425.

A Manual of the Diseases of the Human Eye, &c. With the Observations of the Editor, Dr. Charles H. Weller. Berlin, 1819. Translated and illustrated by George C. Monteath, M. D., one of the Senior Surgeons of the Glasgow Royal Infirmary, &c. &c. 2 Vols. 8vo. Glasgow, 1821.

The time has at length arrived for ophthalmic diseases to receive the philosophical attention, which the value of their subject organ demands. Of the three publications whose titles are announced above, the merits are very great, although, to a certain degree, distinct. To the German author is due the honour of much erudition, artificial compression of the writings of others, and judicious interspersion of his own ideas. To the translator of his book, the British Practitioner will return his cordial thanks, that he has introduced him to the accurate diagnoses of the continental Surgeons, and to acquaintance with other qualities in himself besides the art of translation.

The pages of Dr. Vetch are replete with proofs of long and extensive experience, of a studious intimacy with ophthalmic pathology, and of a masterly, decisive, and independent practice.

Mr. Travers has accomplished what all who knew him

anticipated; he has reaped that harvest which the Charter-House Square Infirmary presented; and he has favoured the public with the fruits in a method of which, considering the necessary objections to all classification, the difficulties are very few. In one chapter is given the pathology of the membranes; in a second that of the humours; in another that of the appendages. The treatment of the diseases is included in four subsequent chapters.

In the adoption of such a plan, the conjunctiva presents its diseases as the first objects of investigation. Now, to an accurate distinction of conjunctival inflammation, a knowledge of the anatomical distribution of its blood-vessels is essential; because the conjunctiva is transparent, and to a hurrying eye sclerotitis might appear, but for a difference of vascular distribution, simple conjunctivitis. The vessels of the conjunct. bulbi are derived from two sources; 1. The palpebral arteries and veins; 2. The ophthalmic muscular branches. The first, creeping upon the sclerotic conjunctiva, in the palpebral sinuses and angles, are reticulated upon the loose portion of conjunctiva. The second, after penetrating the tendons of the straight muscles, advance in four fasciculi. These spreading, as they advance upon the globe, form numerous lateral anastomoses, so as to present a faint circulus arteriosus upon the sclerotica. In congestion, a free communication is conspicuous between these two orders of vessels. In a complete section of the conjunct., at a short distance from the cornea, both sets may be divided without injury to the sclerotica. By very frequent and minute subdivisions of these vessels, the tissue, which unites the conjunctive and sclerotic, is supplied; and hence, in inflammation, the areolar distribution of these vessels is most conspicuous where this tissue most abounds. At the verge of the cornea, both orders of vessels are rectilinear; for the looseness of the conjunctive gradually diminishes from the point of reflection, and its adhesion to the cornea is inseparably strict. This difference in strictness of adhesion explains some varieties in the diseases of the respective portions of conjunctive. — *Travers.*

However vascular may be the inflamed sclerotic conjunctive, red blood is not admitted to the vessels of the corneal conjunctiva, unless, in the opinion of Mr. Travers, a morbid change has previously taken possession of this texture.

The first effect of inflammation upon the cornea is haze or dimness, from the loaded state of its serous vessels. This is sometimes very transient, and is merely a condition of congestion. But this state continued produces a deeper and more permanent opacity; effusion into the connecting

texture; thickening of the corneal conjunctive. The conjunctiva is to the cornea what periosteum is to bone. It nourishes the superficial lamellæ; wherever it is completely detached, the exposed surface of the cornea ulcerates, and its vessels repair the breach. The interlamellar texture of the cornea may represent the medullary membrane; gangrene does not ensue but from a permanent destruction of both textures. — *Travers.*

Inflammation in these conjunctival vessels which is not specific, is as simple in its treatment as in its nature; and the readers of the Repository will deem it but a waste of time to dwell at all upon so trite and understood a subject.

The strumous inflammation of the conjunctiva bears about it no very visible and striking marks of distinction, except it be in the vast intolerantia lucis attending it; an intolerance that bears no proportion to the degree of vascularity on the surface of the ball. There is no reason to imagine that this "morbid sensibility of the retina" depends on any thing but sympathy; that it results from any thing like increased action in the vessels of that delicate texture. Nay, if there be actual retinitis, there exists obtuseness, not augmented sensibility. It is so in no other organs of sense. "Inflammation of the passages and auxiliary textures of the organs of sense may render the impression of their natural stimuli painful, but here, and probably in all cases, the increased acuteness of the sense is sympathetic." The organic sensibility of the sentient organ may be augmented, and this is rendered probable by the first symptom of retinitis, a vehement and most distracting pain: but there is no evidence that the animal susceptibility of the peculiar stimulus of the organ is at all excited. — *Travers.*

The functional character of this affection is proved in the experience of Mr. Travers, by the success which attends his method of cure, founded on the supposition that this sensibility is due to a morbid sympathy of the retina with the secreting surfaces of the primæ viæ and the skin. The tongue shows various signs of gastric irritation; the cutaneous surface is remarkably dry and harsh. Accordingly, it is cured by diaphoretics, as tartar emetic to nausea, James's powder, or calomel combined with opium, in small doses; by the warm bath; and materially corrected, if not removed, by a preternatural secretion in the vicinity, as by an open blister on the nape of the neck. An aggravated intolerance is often removed in twelve hours by the application of a blister. — *Travers.*

These remarks are of some importance, inasmuch as this strumous ophthalmia is particularly common among the

poor and the delicate; and prevails much in London, and large towns: and inasmuch as a plan of treatment, founded on the theory of determination to the retina, must, of necessity, by the great depletions it supposes, not merely aggravate the disorder itself, but enfeeble the general constitution, already suffering from inanition and debility.

There is extant a book, by a living author, entitled, "On the Morbid Sensibility of the Eye." It is not out of place to remark, that the practice of others does not in success accord to that of its eulogist—of course the cases detailed in that publication are correct; the theory of their nature induced, even in very delicate persons, a smart antiphlogistic treatment. It assumed a determination of blood to the retina; but it appears, according to fair ratiocination, such determination should produce a very different set of symptoms; and it is certain, that the antiphlogistic practice, to the degree recommended, is not beneficial in every hand; nay more, has been productive of mischief.

"When the inflammation is of a sthenic character, as is more frequent where rapid changes are taking place upon the cornea, as a diffused opacity, or the formation of pustule, and its passing into ulcer on that membrane, especially where the deeper seated tunics are partaking, by continuance, of the inflammation, the necessity of a more active practice is sufficiently demonstrated. But, as a general observation, blood-letting is not salutary in these inflammations." Rough purgatives are pernicious. Warm applications are of no advantage, if not injurious. In simple ophthalmia, on the contrary, in the acute form, Mr. Travers prescribes warm applications, of which none is preferable, in general, to water. Cold collyria may, to an inflamed eyeball, appear, for a short time, the most adapted and grateful; but cold is tonic; it is fitted to the chronic and passive form of ophthalmia; but experience proves that more permanent relief is afforded in the active stage by applications that are warm. Dr. Weller recommends them even in the first attacks of strumous ophthalmia. "So long as pain, aversion to light, and dryness of the eye are present, apply warm poultices, or fomentations of cicuta leaves, or of poppy heads, &c." Calomel and opium are favourite remedies with Mr. Travers for strumous ophthalmia, and its various effects; and if there be corneal opacity and vascularity, the mercury is pushed even to ptyalism. At the Eye Infirmary, calomel is given even to the youngest subjects of this inflammation, in proportionate doses, of a half grain, one, two grains per diem, and, apparently, with uniform advantage.

If the *cornea be ulcerated* in the scrofulous inflammation,

the solutions of lunar caustic, of blue vitriol, of zinc, the vinum opii, are prescribed. In this disorder, the grand object to be maintained in view is the diminution of action with the conservation of power. Hence the necessary avoidance of general depletions of blood. Hence the necessity that local evacuations should be very cautiously advised, and that irritation should be combated either by counter-irritants, blisters, antimonial ointments, setons or issues; or directly attacked by such sedatives as opium, or argenti nitras; for argenti nitras is, however indirectly, one of our most powerful sedatives.

Acute Suppurative Inflammation of the Conjunctiva.—This inflammation is the most dangerous to the organ. In its mildest form, it is very ticklish, and to be combated with sedulous attention, for the cornea is endangered by neglect, or by the exasperation of stimulants. In its most vehement character, it is no less than that terrific malady which has obtained the name, among our soldiers, of the Egyptian ophthalmia. For the mild form, the alum solution should be early substituted for the emollient fomentations, which, during the acute period, should be freely used. Simple purging, abstinence, topical bleedings, blistering the back of the neck, are efficacious.

The vehement acute Suppurative Inflammation is accompanied with most severe darting pains; the upper lid is in a few hours prolonged upon the cheek; the cornea is nearly concealed by chemosis; and the corneal surface is dusky. The system sympathizes very much. The instant relief of a large venesection is indescribable. The scarlet hue, and bulk of the chemosis are reduced, and the cornea assumes a brighter aspect.—*Travers.*

As purulent ophthalmia has hitherto existed in this country, says Dr. Vetch, I consider the employment of pungent or stimulating applications, as hazardous in the extreme. The liquor plumbi acetatis I can recommend as most efficacious, and at the same time incapable of doing harm in this, and in every stage of purulent ophthalmia. A copious lachrymotion succeeds its use; the eye afterwards feels cool, and the sight is clear. It is sufficient, with this simple treatment, to watch the accession of the next symptoms. Copious venesection must then be adopted. When inflammation has its seat in the sclerotica, general blood-letting may, for the most part, be dispensed with; but in the purulent inflammation of the conjunctiva, a perfect command over the disease depends less on lowering the system than on the temporary cessation of arterial action by the syncope, which it becomes the object of the operation to produce. Deli-

quium must be produced. Free exposure to the air is of vast importance, even after chemosis and purulency have commenced. Mr. Murray, Surgeon to the Forces, so highly appreciated this, that he was induced, in Sicily, to march his patients from one place to another, with a view solely to the good effects of atmospheric influence.—*Vetch.*

Infusum tabaci, composed of two drams of the leaves, and eight ounces of water, is a local application, constantly and successfully used by Dr. Vetch. It restrains the purulent discharge, diminishes the œdema of the palpebræ, relieves the pain and vigiliæ, which the largest opiates have failed to subdue. The operation of continued nausea and vomiting is not found, in the experience of this observant Physician, an efficient substitute for the use of the lancet; and this he repeats again and again, in a way to astound the timid Practitioner, and wherein no man would follow his steps, did he not demonstrate that they lead to victory. The average quantity of blood abstracted before the approach of syncope, appeared to be from twenty-four to thirty-four ounces. Should it be objected, that the patients of Dr. Vetch were military men, capable of sustaining depletions which would destroy the majority of civilians, it might be rejoined, that of course every process of cure must be adapted and apportioned by intelligence; that if soldiers be more robust, it is probable that their ophthalmiæ are more vehement; that, at all events, there has not existed in civil practice, at least to any extent of numbers, a disorder so frightfully rapid and disorganizing as the purulent ophthalmia of the British army.

Rarely, says Mr. Travers, a single blow suffices to vanquish the disease. The most violent cases in my experience have been produced by the matter of gonorrhœa applied to the eyes. With large blood-lettings, repeated until the inflammation yields, a brisk catharsis should be combined, and this followed by a tea-spoonful of a solution of emetic tartar every hour, so as to keep up a state of nausea, perspiration, and faintness. If, by these attempts, the inflammation of the conjunctiva be arrested, the cornea retaining its brightness, all is well; but if, when the depletions have arrested acute inflammation, the patient being sunk and exhausted, the cornea shows a lacklustre and raggedness of its whole surface, as if shrunk by immersion in an acid, or a grey patch in the centre, or a line encircling or half encircling its base, assuming a similar appearance, the portion so marked out will infallibly slough, unless by a successful rally of the patient's powers we can set up the adhesive action so as to preserve, *in situ*, that which may remain transparent.

To know how far to go, and not outstrip the boundary; to know when to venture upon a short and sudden reverse of treatment, is the great difficulty of this highly important case. It is a fatal mistake, to consider the first change, which is a true adhesive nebula, as the sign of gangrene, or death, and thus to temporize, or, even under this delusion, to support the diseased action. Another is to treat the discharge as the disease, which is, in fact, but an inconsiderable sign of it as regards its importance, and to stimulate by strong astringent injections in its commencement.—*Travers.*

The Granular Conjunctiva is treated by this author with the knife or scissars, with escharotic stimulants subsequently applied. If vessels ramify on the cornea, opacity of its conjunctiva being a contemporaneous result of the inflammation, or a consequence of the irritation excited by the granulations, a section of the membrane should be made at one line's distance from the corneal margin. The operation may require repetition. After the excision of the granulations, and the division of the conjunctiva, a solution of cupri sulphas, or a few drops of liq. plumbi subacet., or the tinct. opii vinos, may prove useful.

Of the chronic organic results of conjunctival inflammation; of fungi, elongations, excrescences, pannus, pterygium, encanthis, frena, and tumours, it would be needless to write. They require the hand of the Surgeon, either to remove them entirely and at once, or cause their absorption by a section of those vessels which supply their substance with the nutrition of blood.

Cornea. — *The Superficial Ulcer* is commonly attended with much inflammation of the conjunctiva, and, by continuance, of the sclerotica. The pain is often spasmodic, and relieved by profuse lachrymation. Opium should be so combined, as to operate on the skin, and the bowels must be kept freely open. Touching the ulcer with a solution of arg. nitras is the best local treatment. Warm fomentations afford temporary relief. It is advantageous, if not indispensable, to prevent relapse, to mercurialize the system, if the sclerotitis be intense.

Indolent and deep-sloughing Ulcer. — Arg. nitras, or a solution thereof, once or more every day. The cleansing of the ulcer, and the opaque adhesive circle, is the sign for a less frequent use of it; and the deposition of new matter, undergoing a vascular organization, renders its further use hazardous. Leeches may be required. Tonics and sedatives are essential.

Acute Interstitial Ulcer.—This cannot be treated distinctly from the adhesive inflammation, of which it is a sign.

Abscess.—Whether this be the puriform onyx, or central abscess, it requires supporting constitutional treatment, mild cathartics, blisters; calomel should be avoided, as in most instances of ulceration. Paracentesis corneæ is seldom advantageous.

Hypepion.—When it rises toward the pupil, and corneal ulceration is extending, paracentesis is advisable; if not too long delayed, it prevents sloughing.

Procidentia iridis from ulcer should, if small, be touched with the caustic pencil; if large, be snipped off with curved scissars, and the caustic pencil applied to the cut surface and margin of the ulcer. The same treatment is best adapted to prolapsus from wound as after extraction, that is, "when a prolapsus, of whatever kind, prevents the healing of the wound, it should be completely snipped off with a pair of iris scissars, and the surface and edges of the wound touched with the caustic pencil." The inflammation accompanying these states, requires the occasional use of leeches, laxatives, sedatives, light tonics, and mild nutriment.

Opacities.—The nebulous, depending on recent inflammation, are removable. Their cicatrices are not susceptible of absorption. A cornea, whose interstitial texture is obliterated, is, likewise, unchangeable by stimulants. Of these the most effective injections are lunar caustic, and corrosive sublimate, one or two grains in an ounce of water; the sublimate must not be used until after the disappearance of the inflammation; the caustic may be applied in its decline. These local stimuli must be omitted if they excite inflammation; they are more operative than mercurial ointments; but if mercury, internally administered, be demanded for an opacity, it is vastly more influential than when locally applied.—*Travers.*

Strumous nebula of the cornea.—Ptyalism is frequently required; yet, as in such cases, sclerotitis is the most frequent cause of opacity, and sclerotitis is an intractable sort of inflammation, even ptyalism sometimes fails in the hands of Mr. Travers. "The hydr. c. cretâ or the oxymuriate, in small but frequent doses, will sometimes succeed better in this case than the other forms of mercury; and the combination of calomel with antimony, better than that with opium." Mercurial inunction is highly lauded, not merely in cases where internal mercurials disagree with the bowels, but as, in general, the most eligible form of prescription.

Staphyloma corneæ.—It is not intended, in this necessarily

imperfect analysis of our authors, to give the surgical operations which various ophthalmic diseases require: with the method, for instance, of removing a staphyloma, when to be abscised, which of the readers of this Journal is unacquainted? The description of the various modes of removing cataracts, and of the numerous processes for forming artificial pupils, are, consequently, excluded from this analysis; the latter, more especially, is not needed, inasmuch as so lately as May, in the last year, the masterly compendium of Mr. Guthrie gave an opportunity to say as much upon this subject as can well be expected from a periodical publication like the REPOSITORY.

Conical cornea. — For this rare disorder, no remedy has been detected by Mr. Travers; none, it seems, has been practised by the German oculist. Both Dr. Weller and Mr. T. accord that the cornea gives way to the aqueous humour distending a tergo; but the theory which attributes this configuration to an increased action of the vessels of the parts implicated in the secretion of aqueous humour, really appears devoid of foundation, for there is not described, any increase in quantity of the humour, nor any attenuation of the cornea, — the disorder, if such it may be termed, is not met with particularly in any state of constitution; and it is, therefore, to be hoped, that the depleting plan, which has been pushed too far and indiscriminately by some practitioners, will be dropped.

Sclerotitis. — The cornea being the seat of diseased actions, the sclerotic almost invariably participates. Inflammation passing from the surface of the eye to the interior, involves this membrane; but it is propagated slowly, because the vascular communication of the conjunctive with the choroid, through the medium of the sclerotica, is minute. Primary sclerotitis is rare, from the structure of the membrane; and, when commencing, clouds but slightly the cornea, and impairs but little the activity of the iris. Bloodletting, antimony, and ipecacuanha, with opiates, relieve the obtuse pain. Mercury, so specific in iritis, is not so decidedly influential in this inflammation. The use of mercury has, more or less, contributed to produce it in many cases; and its subjects are infested by rheumatic inflammations in the larger joints. Gonorrhœa sometimes precedes or attends it. Yet, although cautiously, and sometimes with intervals of discontinuance, mercury, in most cases, is indispensable. The rude and profuse employment of mercury hurries on the disease; and nitric acid may be often beneficially used in the periods of suspension of the mineral. M. M. hydr. oxymur. gr. $\frac{1}{8}$, seu $\frac{1}{12}$ bis vel ter quotidie. — Hyd. cum

cretâ gr. v. seu x. bis vel ter quotidie — As auxiliaries, pulvis ipecac. comp., conium, hyoscyamus, extractum sarsæ. — *Travers.*

Iritis, when it takes place without any external cause, may, unless sclerotic inflammation comes on also, eventually destroy vision, by the progress of the adhesive action, without giving the patient any further warning than the gradual loss of function. The instant the sclerotic reddens, the primary affection is accelerated, and accompanied by the usual signs of acute disease. Iritis is usually accompanied by sclerotitis, succeeding or preceding, mostly forerunning when the disorder is of an arthritic or rheumatic origin; but, in constitutional syphilis, when, instead of the first or exanthematous stage, there is a discrasia, more or less marked, iritis is liable to appear in the form of adhesive action, which occasions no uneasiness, until the sclerotic becomes inflamed also. Under a different state of syphilized constitution, if the accidental causes of inflammation are applied, or if iritis occurs with the first class of secondary symptoms, the disease assumes an acute form with syphilitic, so to speak, exacerbations, — sclerotitis, attended by a particular dazzling appearance of the eye, exists for some time before any alteration takes place in the appearance of the iris. When sclerotitis occurs, the progress is alike in both cases. There is some little diminution of the transparency of the cornea, which appears as if distended by an increase of aqueous humour. The iris becomes gradually less moveable, the pupil contracts, and places itself towards the inner angle; first the less, and afterwards the greater ring changes colour, the pupil becomes angular, the iris begins to bulge forwards; an irregular intolerance of light increases towards evening: at last there comes on a fixed headach, chiefly confined to the eyebrow: this begins in the evening, increases towards midnight, and diminishes as the morning advances. After every such attack the pupil is more contracted, more displaced, more changed in colour and in form; and the effused membrane behind the pupillary border, sending threads towards the centre of the anterior capsule, more apparent. Lastly, small red or orange-coloured tumours, which eventually suppurate, appear either at the pupillary or ciliary margin. — *Vetch.*

The diagnosis betwixt the pure and the syphilitic iritis, as far as local phenomena go to define, is founded on the character of the pains, which are nocturnal and intense in the specific form of the malady, — and on the site of the pupil, which is said by Weller not to quit its central position in the simple inflammation of the membrane.

Iritis Arthritica.—Iritis with a primary inflammation of the sclerotic, is not a very unfrequent effect of gout in irritable subjects. Before any appearance of inflammation, the patient's attention is called to the part by various unusual sensations, a peculiar prickling in the region of the orbit, a sensation of the crawling of insects, which are followed by a sharp pain extending over the eye, and which seems to arise from the supra-orbitary hole; the lids are put into constant and quick motion, their edges give out, says *Vetch*, a thickish cream-coloured secretion; according to Weller, it is a fine white froth, which is easily distinguished from the meibomian mucus. A flow of acrid tears also takes place. The sclerotica becomes rose-red around the cornea, the colour grows less vivid towards the circumference of the ball, and does not extend to the cornea itself, but leaves immediately around it a small bluish-white ring, which remains as a pathognomonic symptom. The rose-red colour soon shows itself in the conjunctiva bulbi, when the bluish-white ring around the cornea, appears still more distinctly. The conjunctiva becomes varicose, and the bright redness of the sclerotica is changed into a dirty grey violet colour. If the iris now partake of the affection, in meagre and very irritable persons, it becomes immoveable, and changes, if blue or grey, into a greenish colour; if brown, into a reddish. The pupil becomes angular, contracted, and remains, as in pure iritis, in its proper position behind the cornea. The pains increase, and after every attack of pain and fever the pupil contracts more, and a web of lymph forms in it, which, at last, totally destroys vision. When the iritis is completely formed, varicose blood-vessels may be observed in the iris with the eye or with a glass. The eye-ball becomes atrophic and retracts into the orbit, and the gouty pains cease; but they soon attack the other eye, if it has hitherto escaped.

If flabby, callous, arthritic patients, of a relaxed fibre, be attacked by iritis, it shows itself as in meagre, irritable persons, but modified as follows:—The pupil *expands*, and assumes nearly an oval form, because the radiated fibres of the iris contract towards the canthi, particularly towards the internal canthus. The pupillary edge of the iris is reverted, and the small circle entirely disappears. The pains become more severe, tearing and piercing as if the ball would burst; a symptom that the vitreous membrane is also affected with inflammation, which is soon indicated by an opacity therein, and in the vitreous humour; a greyish-green colour announcing the approach of glaucoma. If the lens take a share in the disease, it acquires a sea-green opacity, and forms, what Beer calls, a cataracta glaucomatosa, swelling towards the

iris, either alone or in conjunction with the vitreous humour. —*Weller.*

In arthritic iritis, in general, the *prognosis* is very doubtful; for often, because probably the general gout has not been removed, relapse occurs, of which the course is more obstinate than that of an original inflammation. A rheumatic origin of this species of ophthalmia justifies a more favourable prognosis; and it may be considered less unfavourable for the meagre and irritable, than for the dull, corpulent, gouty habit. M. M. The treatment must, says Dr. Weller, above all things, be directed against the pains; he enjoins frictions upon the brows, of opium with saliva, or tinct. opii croc. cum linimento volat.; avoidance of the least cold; external applications of warmed bags of aromatic herbs, with and without camphor, according to the irritability of the eye; issues, setons, particularly unguentum antim. tart. over the vertebral column, or, in greater danger, behind the ears. Very tedious gouty ophthalmiæ, when arthritic affections never before existed, are often cured by inducing even a slight attack of gout, by means of foot-baths with mustard, &c. The general gout must be treated in this species of ophthalmia, whilst the local affection is combated with the remedies above prescribed. This arthritic iritis is what Dr. Weller denominates, pure production of gout. *Metastatic gout* shows itself in the eye-lids and ball, as an inflammation of an erysipelatous kind. Professor Beer, it is asserted, has always seen this variety of ophthalmia originate from gout of the foot, suddenly repressed by cold and wet, of which it was vicarious, and may quickly proceed to a destructive blepharo, and ophthalmo blennorrhœa; that is, in plain English, to suppurative inflammation in the lids and ball.

The erysipelatous inflammation is recognised by a pale red swelling, resembling a vesicle, commencing from the edges of the eyelids with burning pain, which comes on a short time after the suppressed gout, and soon extends over both eyelids. The swelling now rises in the form of a bladder, caused by a blister, containing a yellow acrid lymph, and soon extends over the conjunctiva bulbi, accompanied with a constant burning pain. This inflammation is even propagated to the lachrymal sac. A flow of acrid tears, which now appears for a very short time, is quickly changed into a discharge of acrimonious thin mucus, and this, again, soon into a blepharoblenorrhœa, and ophthalmoblenorrhœa, which proceed rapidly, and without remission, to destroy the eye by colliquation.

The prognosis is worst in young and robust men; and, even in cases where the suppressed gout has been re-estab-

lished in its original seat, if ophthalmoblenorrhœa have taken place, the eye is lost.

M. M. Above all things, let the suppressed gout be recalled by foot-baths with mustard, and large poultices of mustard applied around the feet. For the erysipelatous affection of the lids and ball, let dry air and warmth, with camphor, be applied to the eye, whilst a general diaphoresis is promoted. If, however, the blenorrhœa have commenced, let the laudanum liquid. Sydenham. mixed with mucilaginous eye-waters or pure, be employed; for severe pains, employ opiate frictions on the brows, and support the strength by internal tonic medicines, as bark, calamus aromaticus, &c. Antiarthritic medicines are of as little benefit in this state, as mercurials are in an ophthalmia, appearing after a suppressed gonorrhœa. This is the description and treatment of Professor Beer. The laudanum Sydenhami, which is so much used in Germany, is very analogous to the vinum opii of the London Pharmacopœia.

Ophthalmia Rheumatica may as well be noticed in this place, from the proximity of its nature to that of gout. This species of inflammation, however, unlike the pure arthritic, does not prefer to attack the internal tunics of the eye. Sometimes, however, it attacks the iris. Weller divides it into two stages, in the first of which, the conjunctiva bulbi, and sclerotica, become red, attended with a stinging tearing pain of the eye and neighbourhood, increased by heat, and in warm feather-beds; there is an acrid epiphora during every change of temperature, and great intolerantia lucis. The sclerotica, of a rose-red colour, shines through the very vascular conjunctive, which moves during the motions of the lids, and its vessels appear fasciculated in many parts. In the *second stage*, the redness and fasciculi increase. The pains extend to the head and jaw, the epiphora increases, the intolerance diminishes, and is felt only from a sudden increase of light. Small watery vesicles, phlyctenulæ, appear on the cornea or white of the eye, and the cornea becomes somewhat dull and muddy. The vesicles burst and change into small ulcers, which throw out a thin corrosive fluid. These ulcers seem as if they were pits from small pieces torn out of the surface of the corneæ. They seldom leave cicatrices, but generally little irregularities only, which, in healthy people, are soon filled up.

When there is present a rheumatic disposition, simple conjunctivitis, or sclerotitis, assumes the rheumatic character; but erysipelatous inflammations are peculiarly liable to this conversion. In the first stage, unless there is a complication of gout, the prognosis is not unfavourable, but the

ulcers of the second stage in unhealthy subjects sometimes leave behind them pits or cicatrices, which impede or prevent vision.

M. M. In the first stage a leech may be applied on the internal canthus, and a cold cataplasm with a small proportion of vinegar in water; gentle diaphoresis. In the second stage, extract. guaiaci, with camphor; arnica, antimonials, &c.; the latter particularly, if there be a complication of scrofula; blisters; opiate frictions; bags of aromatic herbs, with camphor; to the ulcers, vinum opii, &c.

The reason of the digression that we have just made from simple and syphilitic iritis is obvious to the reader; and he is now ready, perhaps, to return to the treatment of those affections. In the treatment of deep-seated inflammation, whether affecting the choroid or iris, the efficacy of mercury, as Mr. Travers expresses it, is remarkable, and every other remedy is comparatively insignificant. One full blood-letting or more should be premised in the acute stage of the disease; and topical blood-lettings, during the exhibition of it, are generally required at short intervals. Now and then the incipient inflammation, where it has extended from the conjunctiva, yields to a copious venesection, and two or three brisk doses of calomel and rhubarb, followed up by the infusion of senna: but, generally speaking, the system must be made to feel the influence of mercury before the disease is permanently subdued. The inflammation which has proceeded to the effusion of adhesive matter never yields to the lancet, continued nausea, or full purging; such cases are always most sensibly and immediately benefited by mercury, whether the cornea, or the iris, or any other texture of the body, be affected. — *Travers.*

In iritis, the practice of this last quoted author appears more decided than that of Dr. Vetch or the German Practitioners. "Taking blood by cupping," says Dr. Vetch, "from the temples, and repeating the evacuation so long as any inflammation appears either in the sclerotic coat or in the iris, is not only effectual in itself, but insures the efficacy of the other means which experience has pointed out as proper for the purpose of opposing the disease. A small quantity of mercurial ointment with opium rubbed into the eyelid and temple, night and morning, seems to have a specific agency in arresting the progress of the disease in the iris: the same may be said of the local use of stramonium and hyoscyamus, which not only prevent the contraction of the pupil, but, after the removal of inflammation, appear very evidently to increase the mobility of the iris, by disengaging it from the adhesions it has formed with the capsule of the lens.

If the disease have occurred during a course of mercury, we may renew its exhibition with safety and advantage. In most cases, it is prudent to take away some blood from the opposite temple, after having relieved the organ attacked by the inflammation.

Dr. Weller, in his treatment of simple iritis, advises only local applications of mercury; a solution of corrosive sublimate, with opium; or a salve to be rubbed in within the palpebræ; or an ointment around the eyes: saying, however, with an air of incident, "when the constitution of the patient will bear it, calomel is also to be given internally." For ourselves, we must say that we feel partial to the mercurializing treatment, even of unmixed iritis, which is recommended by Mr. Travers; and we cannot, for a moment, hesitate to concede to him and to his dignified colleague, Dr. Farre, whatever honour may be due to them for having discovered the efficacy of mercurialism in simple iritis. "I am quite satisfied that the observation was original," says Mr. Travers, "notwithstanding all the attempts of the German scholars to convince us, that at Vienna and elsewhere it was a matter 'lippis et tonsoribus notum.' I shall further add, that I am unacquainted with any fact in medical surgery which ranks with this in point of importance, whether we consider the urgency and frequency of the occasion, or the indispensable necessity, and almost unerring efficacy of the remedy."

The syphilitic iritis, to the treatment of which we have at length arrived, has already been distinguished in definition from the simple and the arthritic, by the displacement of the pupil and the nocturnal character of the pains: as this iritis is primary, the discerning Practitioner will detect it before sclerotitis has commenced; in the fixedness and muddiness of the pupil; in the change of colour in the iris, which, if grey or blue, will become greenish; if brown or black, reddish — the sclerotitis exists as a pretty broad zone around the cornea, more evident near its margin; less conspicuous towards the periphery of the globe — whilst the iris bulges towards the cornea, its pupillary edge is reverted towards the lens — the *dolores osteocepi* which attend, are truly pathognomonic; they come on at eve after sunset, about five, six, or seven o'clock; they attain to their climax about midnight, and relax about four or five, A. M. M. M. It is necessary, says Weller, above all things, to remove speedily the nocturnal pains, which commence at the root of the nose, and extend along the course of the supraorbitary arch, to the external canthus. Opiate-mercurial ointment must be rubbed into the brows every evening; the eye kept warm with a linen compress — severity of pain may demand a repetition of fric-

tion in the night. Sublimate, or calomel, with opium, is to be given internally. The English practice of mercurializing the system will, of course, not be *less vigorous* in this case than in pure iritis. Should gouty inflammation be conjoined with the venereal, and predominate in the eye, then the bluish-white border will be nearly as conspicuous as in the true arthritic disorder.

It is not stated whether, in the pure arthritic iritis, which yields not to the remedies we have detailed under that head, and which threatens the vision rapidly, we are secure in *mercurializing* to save the organ.

Amaurosis.—It is in this extensive order of ophthalmic diseases that oculism is the least successful, in spite of the experience, the minute observation, and the true genius, which have been brought to bear on this department of medicine. The German scholars have distinguished, with great accuracy, the various species of amaurosis, having subdivided to an unexpected extent; but the proportion of practice to diagnosis is unhappily inadequate. Beer proposes the four following genera:

1. Pure dynamic amaurosis—no injury of ocular organization and form.

2. Amaurosis with appearance of morbid organization.

3. Amaurosis with faulty form, partial or total, especially of the irritable structures.

4. Amaurosis mixed; the symptoms of the three first genera blended.

Genus I.—Species 1.—*Amaurosis from over-excited Vitality of the Nerves.*—Causes: Cerebral congestions; idiosyncrasies; over-exertion of sight and mind; white, glistening objects, &c.

M. M. V. S. in the foot; leeches; pediluvia; sinapisms; purgatives; shade; cold water to the eyes. Subsequently, local stimulants: finally, tonics, galvanism, &c.

Species 2.—*Vitality of the Optic Nerve too much depressed.*

M. M. Obvious.

Genus II.—Species 1.—*Amaurotic Cat's Eye.*—In the fundus of the eye, a concave opacity, palish-grey, yellowish-white, or reddish and glittering. Perhaps the pigmentum is deficient.

Genus III.—Species 1.—*Amaurosis from abuse of bitters, narcotics; lead.*—Sympt. Turgescence of conjunctival and sclerotic vessels. Horizontal pupil; dilated, &c.

M. M. V. S.; leeches; acids; acetic cataplasms. If these fail, stimulants, internally and locally.

Species 2.—*Symptomatic of Hysteria, Hypochondriasis, Epilepsia, Convulsions.*—In the two first disorders the pupil is

much dilated; iris stiff and arched forwards; ball immoveable, if the spasms are tonic; but if the spasms are of a clonic character, then the pupil is small, the iris undulates between contraction and expansion: nictitatis; nystagmus.

M. M. Remedies adapted to the original diseases.

Species 3.—*Amaurosis from a loaded state of Bowels,* often from ten to twenty years in forming.—Pupil, pale black, dilated, angular; iris arched, sluggish; conjunctiva vascular; reddish-yellow, dirty sclerotic.

M. M. Constitutional only. Local applications injurious.

Species 4.—*Amaurosis vicarious of acute cutaneous Eruptions.*—Pupil clear, contracted, fixed; external coats vascular.

M. M. Recall of the eruptions; in variola the use of calomel; in scarlatina the use of antimonials; issues, antimonial ointment, &c.

Species 5.—*Amaurosis Rheumatica.*—Pupil clear, of regular size, fixed; lachrymation; intolerance; pain in the eye, teeth, or neck: luscitas: ptosis. Cause, sudden refrigeration.

M. M. Sudorifics; blisters; stimulant, anodyne liniments; electricity.

Species 6.—*Amaurosis vicarious of a suppressed Cold in the Head, without a sensible collection of Mucus in the Frontal Sinuses.*—Pupil dilated, fixed, clear, angular in its temporal edge, generally drawn towards the outer canthus.

M. M. Obvious and pretty certain. Emollient vapours; weak sternutatories of calomel; of hellebore; of hartshorn.

Species 7.—*Amaurosis Paralytica.*—Attack sudden; pupil contracted, clear, fixed; one or more muscles of the ball palsied. Causes, concussions, apoplexy.

M. M. Nervous medicines internally and locally.

Species 8.—*Amaurosis from Hydrocephalus.*—"I have twice seen," says Weller, "amaurotic amblyopia developed in a very great degree in women of a middle age, affected with *dropsy of the chest.* The amblyopia evinced itself by objective symptoms, viz. a much dilated, almost fixed but clear pupil, by sluggishness and a sense of weight in the eyeball, with a more or less swelling of the latter, and by a peculiar glossy appearance of the eye, as also by a very dirty brown colour of the iris, which had formerly been of a light brown. The vision improved, when the principal disease declined; although the patients almost constantly believed they saw every thing covered with a black gauze."

Genus IV.—Species 1.—*Amaurosis from Wounds.*—The practice of the German school, in this case, is to divide freely, as the French would say *debrider,* the branches of the supraorbitary nerve, which Professor Beer supposes to be torn and tense, if a cicatrix be badly formed after a

wound of the brow. His incisions are bold — they penetrate to the bone.

Species 2.—*Amaurosis Arthritica.*—This occurs mostly in women with dark eyes. Pain in the eye, its vicinity, or the head, rending, wandering, with a sensation sometimes of the crawling of ants on the skin around the eye. The pain augmented in wet cold weather, on feather pillows, from indigestible dishes, after severe mental emotions. It becomes milder, or disappears for a long time, from an opposite set of causes. Iris nearly or quite fixed, dark. Pupil dilated, horizontal; that is, drawn towards the canthi, as in ruminating animals; pale, faint black, or greenish-grey. Vessels of the eye varicose. Besides the turbidity of the vitreous humour, the lens may become a cataracta glaucomatosa, after which an atrophia bulbi may be expected.

M. M. A tranquil mind, avoidance of cold, of disordered stomach, impure air, feather pillows; substituting horse-hair, &c. &c. &c. The attacks of pain to be combated with the remedies of iritis arthritica.

Anti-arthritic remedies; sinapisms, setons, blisters, antimonial ointments.

Species 3.—*Amaurosis vicarious, from quickly suppressed and cured Eruptions on the Head, old Ulcers of the Feet, and Itch; also after cutting off the Hair in Plica Polonica.*

Species 4.—*Amaurosis from a suppressed Fit of Passion.*—M. M. Emetics. If chronic, camphor, arnica, sulphur baths.

Species 5.—*Amaurosis from suppressed Cold in the Head; with a Collection of Mucus and of Matter in the Frontal Sinuses.*—Pupil contracted, pale black, circular, fixed; weight and pain at the root of the nose, and in the frontal sinuses; affected organ turned out of the axis of vision; ptosis; dryness of the nose; sneezing; photopsia; the eye is at last pushed downwards and out of the orbit, and even the anterior wall of the frontal sinuses projects.

M. M. Leeches; general depletions. When the pain has ceased, local remedies, to increase the secretion of mucus; blisters, volatile liniments, &c. &c. &c. Trepan to the frontal sinuses, if needed.

Species 6.—*Amaurosis from suppressed Milk in Lying-in Women.*—Furious pain in the brows; pupil slightly dilated; iris fixed, swoln, discoloured. Photopsia; photophobia. If the transparent media become muddy, the prognosis is highly unfavourable.

M. M. To restore the secretion of milk. Arnica, camphor, with calomel; issues, mezereon, blisters, &c.

Species 7.—*Amaurosis from Organic Lesion of the Optic Nerve.*—Symptoms, according to Professor Beer:—Objects

appear mis-shapen; a sensation of exophthalmus, of which there is not the least symptom; pupil fixed, dilated, angular, perhaps pentagonal or hexagonal. Glaucoma; glaucomatous cataract; partial atrophy, without varicositas. The amaurosis which proceeds from organic lesions of *the bones of the skull or brain* takes place in ricketty persons, subsequently syphilized. It commonly attacks both eyes; metamorphopsia; instead of a black cloud, as in the first variety, objects seen dimly and confused; vertigo; photopsia; intolerance; iris lively; contracted cat's pupil; convulsions of the eyes and lids; squinting; turgescence of the blood-vessels, which terminates with the most severe headaches in circophthalmia. Lastly, after complete blindness, the headach, which has remissions, may increase; the senses of hearing, smelling, and taste; memory, and other functions of mind, may be lost. Perhaps exophthalmus, frenzy, paralysis.

So much for the German doctrines of amaurosis. Mr. Travers's account of this disorder is short, humble, and interesting. His division of it is triple — into functional, organic, metastatic. Of metastatic amaurosis enough has been said in the extracts from Weller. The functional, we learn, will degenerate into organic; that is, into altered structure of the retina, or other essential parts, unless checked by art; and for the organic, no art is available. Mr. Travers has no faith in the utility of external remedies, save blisters, cupping, issues, and setons. He has never derived, in his practice, the least benefit from electricity and galvanism. Blood-letting has been abused. In cases of undue determination of blood to the organ, which are especially common after deep-seated chronic inflammation, or distress from over-excitement, by which its vessels have lost their tone, this effect is increased by depletion. He contemns antispasmodic and anti-nervous medicines as useless — has seen no good produced by the emetic practice. Cases of gastric disorder, to which it is especially applicable, are most benefited by a long-continued course of the blue pill, laxatives, and bitters.

Mercury.—When the amaurosis is recent and sudden, and either the signs of an obscure inflammation are present, or only the amplitude and inactivity of the pupil correspond to the patient's history, mercury should be introduced, with all convenient rapidity, into the system, so as to ruffle it in the least possible degree. Salivation is hurtful. When mercury is beneficial, its efficacy is perceived as soon as the mouth is sore.

It has been our object, in this analysis, to be practical, not minute and tediously descriptive. Ophthalmic surgery has

been purposely omitted; because we consider that the operative Surgeon, in all probability, is furnished with the original works from which we have drawn; if not, we recommend them to his perusal. But a considerable number of country Practitioners, who may not have access to these volumes, will not reject a compressed account of some very common, yet important maladies, whose nature cannot be too well known, if the preservation of eyesight be much connected with human happiness. It is painful to witness, as we do almost daily, the effects of ignorance in the treatment of this class of diseases; and we mention more particularly the bungling, fatal mismanagement of the purulent ophthalmia of infants. Although this form of disease has been noticed by us, it has been treated of as occurring in the adult; and we will, therefore, notwithstanding it is here introduced out of order, conclude with the judicious and successful practice in this disease of Dr. Monteath.

If the inflammation be merely confined to the lids, a profuse discharge causes no serious injury, provided the parts are washed with tepid milk and water. If it extend to the conjunctiva bulbi and cornea, in forty-eight hours it may work incurable mischief.

M. M. In the first week, a decidedly antiphlogistic plan is the best. If the disease be not met with till the second or third, then, in place of leeches, Dr. Monteath scarifies the lids: a second, third, or even fourth scarification on the succeeding days may be required. Blisters are decidedly advantageous after previous bleeding; and infants, born even in the seventh month, bear them well. A small blister, two inches square, may be applied to the middle of the occiput. If the unguent. lyttæ make the child fretful, a dressing of resinous ointment may be substituted. Thus a flow of pus will be excited in less than three days; and from that hour, the discharge and swelling begin to decline. Now is the period for astringents. If, after four trials of a weak astringent, decided benefit be not observed, it has been commenced too early. One grain and a half of arg. nitrat. in an ounce of water, is the most efficacious application, particularly when the cornea and conjunctiva are excoriated or ulcerated. It should be applied only twice a day. The intermediate washings to be made with tepid milk and water. The Surgeon may vary the zinc lotions with the nitrated solution.

One further observation, and we have done. The *operation for fistula lachrymalis* has frequently been performed, especially out of London, when it was quite uncalled for Mr. Travers has thrown great light upon the diseases of the lachrymal passages. If the Surgeon remember that inflamma-

tion is the most frequent cause of their obstruction; and if he will treat the local inflammation, with due reference to the peculiarity of textures, with the patient, precise, and hopeful care which, in this case especially, is demanded, he will not need to rush so frequently to the painful operation for fistula.

PART III.

SELECTIONS.

Observations on the Effect of dividing the Eighth Pair of Nerves — communicated in a Letter to the Editor of the Quarterly Journal of the Royal Institution, by Charles Hastings, M.D., *Physician to the Worcester Infirmary, &c.*

[*From the Quarterly Journal of Science, Literature, and the Arts.*]

[Continued from p. 502.]

One of the proofs of digestion which, according to Mr. B.'s representation, was invariably present in the stomachs of rabbits, in a greater or lesser degree, after the division of the eighth pair of nerves, was a quantity of chyme, which, in some cases, was very abundant towards the cardiac portion of the stomach*. This chyme very much resembled mucus, and a layer of it covered the parsley, which was of a brownish colour. In most of these experiments, particularly in the third, this chyme was only found about the cardiac portion of the stomach, and was wanting in the pyloric portion; moreover, it never seems to have been found in the duodenum. In fact, if the relation of the experiments be correct, this chyme was almost peculiar to the cardiac portion of the stomach, and, according to experiment 1, was mucus. Therefore, according to these experiments, chyme is like mucus, and is very abundant in the cardiac portion of the stomach; although it seldom appears in the pyloric potrion. We are, however, usually taught, that chyme is the food which has been taken into the stomach, and altered there by the action of the gastric juice; and that it is usually found in the pyloric portion of the stomach, ready to pass into the duodenum, where it is separated into chyle, and excrementitious matter. We also find that this substance, which, by Mr. B., is called chyme, is described, by Dr. Wilson Philip†,

* See Experiments 1, 2, 3, 4, 6, 7, 9, 10, 11, 12, 13, 15.

† "It deserves notice that, although the eighth pair of nerves have been divided, the food is found covered with the same semi-fluid which we find covering the food in a healthy stomach." — Wilson Philip *on the Vital Functions*, p. 124.

as a semi-fluid, which is usually found covering the contents of the stomach, whether the nerves have or have not been divided. The reader, therefore, may judge how far the presence of this matter is any proof of the digestion of the food.

Another proof, adduced by Mr. B., of indigestion having gone on after the division of the nerves in the neck, is that of parsley assuming a brown colour! In seven of the experiments on rabbits, the parsley remained in the stomach from fifteen to twenty hours, and no other alteration was observed in it, than this change of colour!! Now, had a healthy animal been similarly fed with one of those operated on, and killed at the same time with it, a complete chemical change would have been found to have taken place in the parsley after so long a fast; and the contents of the cardiac portion of the stomach would have been in a semi-fluid state. It is to be regretted, that Mr. B. should not have had recourse to this mode of making the experiment, as he could not then have been so entirely deceived by the appearances of the parsley, which certainly afford the strongest possible evidence, that digestion did not go on after the division of the nerves. Of this, Mr. B. might also have convinced himself, by consulting the chapter on the process of digestion, in Dr. Wilson Philip's Essay on the Vital Functions, where that author observes, that, " when rabbits have fasted sixteen or eighteen hours, the whole food found in the cardiac portion, which is in small quantity, compared to what is found in it immediately after a full meal, seems frequently to be all nearly in the same state with that next its surface, the gastric juice having pervaded and acted upon the whole, and it is, consequently, apparently fitted to be sent to the pyloric end."—p. 162.

In the five remaining experiments, the rabbits did not survive the operation more than from two to nine hours; and in none of them either, did the food show any marks of digestion. The alteration of colour being alone observed.

In the eighth experiment, which was performed on a puppy dog, the eighth pair of nerves, *it is said*, were divided. The animal lapped milk several times after the operation, and the stomach regularly rejected all that was taken. At length, however, the account goes on to state, that the stomach became quiet, and retained some milk. The animal died some hours afterwards. On examination, the stomach was entirely free from redness, and contained merely a little fluid, resembling whey. " Hence it appears," says the author, " that the milk taken subsequently to the last vomiting had been regularly separated by the digestive process, and the curd dissolved and passed away." Now I am inclined to be sceptical with regard to the last milk having been

retained in the stomach; for it does not appear that the dog was watched through the night, during which period a fit of vomiting, in all probability, came on, and the milk was rejected. But, even admitting that this was not the case, the author should certainly have satisfied himself, after death, that the eighth pair of nerves were divided. The sympathetic nerves are near, and have occasionally been divided in mistake; still further, the eighth pair of nerves may have been divided, but care not being taken to prevent their divided ends coming in contact, partial union may have taken place, and thus the functions of the stomach would be partially performed. This once happened in my own experiments. After dividing the nerves, I found digestion of the food went on; and I was at a loss to account for the circumstance, until, on examining the nerves, the divided ends were found united together. The same thing has been noticed by others. Dr. Macdonald, in his Thesis de Ciborum Concoctione, observes, "Insuper in experimento 30mo animal necatum fuit, horis viginti quinque et quadraginta quinque minutis post pastum, et horis viginti quinque septemque minutis post nervos vagos persectos. In eo exemplo, nervus, ubi discussus fuerat, fibrinâ sanguinis effusâ quodammodo conglutinatus reperiebatur; necnon indicia quædam chymi et chyli in duodeno observabantur; et (quæ sane res memoria dignissima est) vesicula fellis non turgida et distenta fuit, ut in experimentis 19mo et 20mo, ubi pare vago diviso, concoctio cibi prorsus impedita et suspensa fuit; sed e contrario, hæc vesicula quodammodo flaccida et vacua erat; non aliter ac si cibus, inter coquendum, eam contrahere et humorem suum expellere stimulasset."—p. 41. Thus the conclusion which Mr. B. wishes to draw from the eighth experiment, is by no means free from suspicion of error.

Neither are the experiments on the three horses at all favourable to this gentleman's views. In the fifth experiment the horse expired too soon to admit of any observation on the contents of the stomach. In the fourteenth, the animal lived fifty hours, and hay was found in the stomach in a masticated state; but, as the account says, considerably less than the horse had eaten. It will be admitted, that this indefinite mode of stating the result of an experiment can never be satisfactory. We cannot be certain that the quantity of food found in the stomach was less than that which was eaten, unless the food and the contents of the stomach had each been weighed. The only result, therefore, that can now be certainly known is, that there was some masticated hay in the stomach, and that the duodenum was

empty; both of which circumstances pretty certainly evince that digestion did not go on after the division of the nerves. Let, however, this point be settled as it may, the experiment by Mr. Field, in which he ascertained, after death, that the proper nerves were divided, must be regarded as quite fatal to Mr. Broughton's inference. For in this case the animal lived sixty hours after the division of the nerves, and yet not the slightest degree of digestion took place during that time. This one fact carries with it a conviction which appears perfectly irresistible; for, if the result of this experiment were fairly contradicted, there would be an end to the consistency of nature's laws. And yet Mr. B. does not express any surprise that the experiments which he relates should contradict each other; nor does it once seem to strike him, that he may have been deceived in his judgment of what he considers proofs of digestion after the division of the nerves.

The affection of the respiratory organs was, in all my experiments, manifest, from the moment of the division of the nerves, although the degree of dyspnœa varied considerably. Where the animals were allowed to die, I was invariably convinced of the truth of Le Gallois' position, that the immediate cause of death, from the division of the eighth pair of nerves, is referrible to the disorder of the respiratory functions; and he appears to have demonstrated satisfactorily, that the circulation ceases, from the opening of the glottis being diminished, from the lungs being congested, and from the bronchia becoming clogged by extravasated fluids.

The remarks with which Mr. B. concludes his paper, are intended to explain the symptoms which follow the division of the eighth pair of nerves. He considers that Mr. Brodie has put this in a very clear light, in his lectures at the College of Surgeons, by observing, that the lungs are endowed with sensation through the influence of the par vagum; and that, being deprived of sensation from the division of the nerves, on the sides of the neck, they gradually cease to act, and the muscles of respiration in vain strive to effect the proper circulation of air. The consequences must be apparent, the blood is prevented from imbibing the wholesome influence of the atmosphere, and it becomes dark, discoloured, and unfit for the secretions of the stomach, and by degrees ceases to circulate altogether; the lungs become collapsed and turgid, and the heart loaded with coagulum.

This idea, that the entire cessation of digestion, consequent

on the division of the eighth pair of nerves in the neck, arises from a primary affection of the lungs, is contradicted by many facts. The respiration sometimes continues tolerably free for some hours after great derangement of the functions of the stomach has been shown by frequent vomiting. If the animal be killed before great difficulty of breathing comes on, as was the case in the experiment above related in one of the dogs, the same proofs of non-digestion appear as when the lungs are most affected previous to death. Besides, the very reverse of the position which the above gentlemen are anxious to maintain, often obtains. The first signs of difficult respiration are often seen to come on after repeated efforts to vomit; from which we might as fairly conclude, that the vomiting is the cause of the difficulty of breathing, as Mr. Brodie does, that the disorder of the lungs is the cause of the failure of the functions of the stomach. But in addition to all this convincing evidence, it is well known that the lungs are often most severely injured, without the functions of the stomach being sensibly impaired. Vomiting, certainly, is not a common symptom in the most severe asthmatic affections. Neither does the food in such instances remain in the stomach perfectly undigested.

On the whole, it may be maintained, that no fact in physiology is better established than that the division of the eighth pair of nerves in the neck is followed by a suspension of the functions of the stomach.

It seems quite unnecessary to extend the present communication to the investigation of the evidence which proves that a certain power of galvanism will restore the functions of the stomach, after the division of the eighth pair of nerves. We may, however, remark, that the experiments related by Dr. Wilson Philip remain uncontradicted. The inaccuracies of that experiment which was made at the Royal Society have been admitted by one of the three conductors of it; and that gentleman has since related one more nearly corresponding in its result with those of Dr. Wilson Philip, in which a weak power of galvanism was employed. In addition to this, Dr. Clarke Abel, of Brighton, has, in his experiments, met with results in all respects similar to those detailed by the latter author.

In alluding to the above report, Mr. Broughton's candour, I have no doubt, would have led him to mention Dr. Wilson Philip's reply to it, which appeared in the following number of the same journal, if he had been aware of that reply.

Notice of Dr. Wilson Philip's *recent Experiments at the Royal Institution.*

After having thus presented to our readers the different allegations and opinions of different experimentalists and physiologists, on the subject of nervous influence, and the consequences immediately following the division of the eighth pair of nerves in the neck; we think it but an act of bare justice to Dr. Philip, to state that as far, at least, as relates to the effect of such division upon respiration and digestion, he has lately obtained a complete triumph over his opponents, by some experiments recently instituted at the Royal Institution, in Albemarle Street, and which we had an opportunity of witnessing in all their detail. It should seem, that the discrepancies of observation that had obtained among several philosophers on this point, in a great measure, arose from some of the experimentalists having confined themselves to the mere *division* of the nerve, without carefully insuring a permanent separation of the divided ends; and in the animals thus treated, the functions of the lungs and stomach were not interfered with, in any thing like the measure that will now, we believe, be allowed invariably to happen, when the separation is thus made actual and complete.

It is, by the way, a curious fact, that nervous influence may thus, at least, partially obtain from mere mechanical (not organic) union of the severed extremities of a nervous chord—a fact which Dr. Philip will, we think, be disposed to seize hold of, for the purpose of strengthening his favourite assumption, that nervous power and galvanism are one and the same thing. Respecting this hypothesis, however, we have nothing at present to say, and shall content ourselves with merely stating, without allowing that we are converts to the doctrine, that one of the most forcible objections, (as it always appeared to us,) adduced by Dr. Monro against the identity of nervous agency and electricity, appears, by the circumstance adverted to, to be disarmed of its power; the objection is this, that while the divided ends of a wire, brought into contact, will communicate the electric impulse, the nervous power, lost by such division, cannot thus be restored.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

Extract from a Memoir on those Enteritic Inflammations which are consequent upon Hepatic Disorder. By M. Portal, Principal Physician to the King.

(From the Annales du Cercle Medical.)

[In perusing the following Memoir, the reader will be struck with the little notice taken of English pathologists, who have, within the few last years, called the attention of the Profession to Hepatic Disorders.]

Is it a fact, that intestinal inflammations are more commonly met with in our days, than was formerly the case? Certain it is, that reports respecting gastric and enteritic disorders are more frequent than they were wont to be; but it would appear to me, that this is attributable to a deficient recognition of primary affections, and to our regarding mere consecutive complaints as idiopathic and radical. That a careful distinction between these is highly important, in a practical point of view, scarcely needs be observed, and I hope, in the following remarks, to establish the especial necessity in these cases of accurate diagnosis.

In instances of actual disorder of the intestines, it is of the highest moment to determine, whether the source of the derangement may not have been in hepatic affection, and biliary disturbance; for, in that case, the real nature of the malady is very deficient from that which should be occasioned by poisonous or drastic substances, received into the alimentary canal, or from the abuse of food and spirituous potation. The importance of this distinction has been well pointed out by my illustrious preceptor, Ferrein, in a memoir read before the Royal Academy of Sciences.

Let us then, after his example, always endeavour to trace the intestinal disorder, that we may be called upon to treat, up to its primary source, without being deceived by imposing symptoms. If the attendant fever is accompanied by a desire to vomit, with or without pain in the epigastric region, let us not be too hasty in prescribing emetics, or other active medicinals, which would often aggravate the complaint, since

the seat of the disease is not where it would at first sight appear to be, but in the liver, an organ, the comparative insensibility of which prevents often the ready expression of its actual maladies.

In order to appreciate fully the influence of the hepatic organ upon the intestines, we must recollect the anatomical connexion of the one with the other, their reciprocal communication by means of blood-vessels and nerves, and the manner in which the common biliary duct enters the duodenum, by traversing, in an oblique manner, its tunics. How often is it that umbilical pain exists to a very great degree, which is, in truth, an hepatic affection, but which is not thought so to be, inasmuch as the region of the liver is without painful sensation? The complaint is ascribed to rheumatic derangement, to worms, or to intestinal inflammation, which examination afterwards proves to have had its actual seat in the liver, and to have been produced by a morbid condition of the bile. I might adduce a very large number of instances in proof of this position, but I shall cofine myself to the following.

M. Dutillet, sixty years of age, had long complained of a pain accompanied by tension and extreme heat in the umbilical region, with difficult digestion, and defective appetite; he lost flesh, and his pulse was habitually frequent and oppressed (serré). Emollient drinks, baths, and leeches to the anus, were prescribed for him; as the force of the complaint did not yield to these remedies, a rheumatic affection was suspected to have fixed itself upon this part, especially as the subject of the disorder had previously experienced pains in the lower limbs, which were judged to be of the nature of rheumatism; warm bathing, sinapisms, and diaphoretics, were now, therefore, ordered, but the malady still continued to proceed, the pains became still more intense, and the skin of the face now assumed a yellow appearance.

Upon being called in consultation upon this case, I perceived, upon placing my hand over the abdomen, that the liver jetted out beyond its usual dimensions, and was felt in the epigastrium. The pulse I also found full and hard, the urine red, and the countenance icteric; and I in consequence gave it as my opinion, that the liver was the organ principally implicated in the affection. I recommended venesection at the arm, baths, and aperient medicines, and the abdominal pains were lessened under this treatment. I afterwards prescribed l'eau de Vichy, at first mixed with equal quantity of ptisan of dog's-grass, (chiendent,) afterwards pure; and at the end of some weeks, put the patient upon a course of whey with terre foliée de tartre, which last was gradually

increased to the dose of a dram a day; and under this plan the complaint at length yielded, and health was completely re-established.

A trading woman, residing in the street of St. Denis, had been, for a long time, affected with pains about the umbilicus, which, at times, were so urgent as to occasion the fear of actual inflammation of the bowels. She was thirty years of age, possessed of a good constitution, but was not regular in her mode of living. I ordered leeches to the anus, just previously to the period of menstruation; the use of a tepid bath, soap pills, and endive ptisans, (tisanes chicoracées,) and the complaint subsided. In the course, however, of some months afterwards, in consequence of a return of the pains, she was ordered aloetic pills, and healing ptisans, without any preliminary bleeding. Her menses were now suppressed, and there were symptoms of actual enteritis. Immediately upon being summoned to see her, I ordered her to lose blood from the foot, and prescribed relaxing drinks, with tepid bathing. The menstruation immediately became regular, bilious evacuations were procured, and the disorder was again cured. Now, in this case, had the tonic plan been continued, the end would most probably have been an incurable inflammation of the bowels. In this opinion I am confirmed, not only from the facts just related, but from many others, which are inserted in my Medical Anatomy, and in my publication on disorders of the liver. At the same time that I was collecting observations together in reference to this point, Dr. Saunders, a celebrated English physician, (just deceased,) condemned, in a work which he published in London, the active treatment pursued among us in those hepatic affections which threaten inflammation of the bowels. Dr. S. communicated to me these remarks, after having perused my publication, in which he found the same results that his own observations had led to. Now, what I have advanced on the subject of stimulating medicinals, I wish to be extended to those abdominal affections which supervene often upon ileus, which occur in bilious, in malignant, and especially in typhus fevers.

Those febrile irritations which develope themselves during the heats of summer, are often accompanied with marks of enteritis. They are characterized by the following symptoms: yellowness of skin, considerable heat, abdominal pain and distention, more especially about the umbilicus, nausea, bilious vomitings, hard and frequent pulse, urine small in quantity and high coloured.

Upon examining the body after fatal cases of these bilious fevers, besides traces of inflammation, and sometimes gan-

grenous spots in the line of the alimentary and intestinal canal, I have invariably found more or less of liver affection, and have observed in the gall-bladder a blackish bile, similar to that found in the stomach and intestines. In these cases, I have been disposed to regard the morbid alteration of the bile as the cause of all the mischief, inasmuch as the subjects of the complaint had voided this blackish matter, both by vomiting and stool; and its acrimony is such, that the patients complain of much pain in its passage, and not seldom actual excoriations are produced about the verge of the anus. Is it not, therefore, sufficiently evident that, in these cases, the main attention should be given to the quantity and quality of the bile, and that these should be corrected by mild laxatives and tepid bathing, without having indiscriminate recourse to blood-letting, which, in real idiopathic enteritis, is always an absolutely necessary part of practice?

Again, in those putrid fevers which are complicated with dysentery, the traces of gastrititis and enteritis which are discoverable after death, are properly attributable to a disordered condition of the liver, and to morbid changes in the bile, since, in these distempers, the symptoms lose all their intensity in proportion as the evacuations from the bowels become decidedly bilious, and *vice versa*.

Let us peruse the immortal works of Pringle, Huxham, and Toote, with others, and be convinced that whilst malignant fevers, in which the liver and bile are always affected, are complicated with abdominal and intestinal disorder, that such disordered states ought not to be confounded with real inflammations of the stomach and bowels.

We have found also that Vernarp, Bouvart, Borie, and Maloet, have treated putrid and malignant fevers with much success, by a persevering use of mild aperients, preferring the employment of these, in the majority of cases, to blood-letting. The following recital will prove how easy it is to commit mistakes, in reference to enteritic requirements.

A strong man, about forty years of age, consulted me on account of violent pains which he felt, especially about the umbilical region. After taking a hearty dinner, he was tormented in the evening with vomitings of a very bitter matter; indeed, he imagined that some person had mixed poison with his food, with an intention of destroying him. I examined the abdomen of this man attentively, and upon striking it, I found that the liver projected from under the false ribs, and there was much tenderness of the epigastrium. The eyes were yellow, and the skin assumed somewhat of the same tinge. My patient told me that he had formerly been

subject to jaundice, and that his urine was occasionally so highly coloured, as to have the appearance of blood.

Guided by these circumstances, I did not hesitate to pronounce the disease to be hepatic, and told the individual he might make himself easy on the subject of his suspicions; but he was so convinced of the rectitude of these, that he did not follow my prescriptions. Some months afterwards, he again came to me, accompanied by his wife. He had been affected with the same colicy pains, accompanied by vomitings; and the complaint had been treated as enteritic. He still persisted in the notion of his being poisoned.

I ordered him leeches to the anus. I prescribed for him saponaceous pills, with bitters. He used the tepid baths, and, subsequently the *eau de Vichy.*

This treatment, under the superintendence of his wife, was conducted with such success, that in the course of about three or four months, his physical disorder and mental malady both appeared to be giving way; and in the course of a few months more, they entirely disappeared.

M. Dormesson, formerly the first president of the parliament, was for a long time affected with pains, which M. Casmier, his medical attendant, recognized as hepatico-colic; and they were accordingly treated by mild saponaceous medicines, by baths, and leeches to the anus. He consulted me, and I recommended a perseverance in the same plan, adding some laxative potions; but instead of abiding by our prescriptions, he had recourse to the remedy of *Durande,* physician of Dijon, the quantity of which was increased without precaution. The pains became much more violent and frequent, the pulse was sharp and frequent, and the patient died, notwithstanding the use of relaxants and calming medicinals.

The body was examined in my presence, by Dessault, chief Surgeon of the Hôtel-Dieu. The liver was found very considerably enlarged: it was schirrous, and presented some points of suppuration. A black and pitchy bile was contained in the gall-bladder; and in this viscus was likewise found a considerable number of small gall-stones; the vessels of the stomach were injected; and the intestines contained a considerable quantity of blackish bile; and it seemed, upon the whole, sufficiently evident, that the stomach and bowels had been but sympathetically or consecutively affected; and that it was to the hepatic lesion that every thing was primarily attributable.

I might, indeed, cite many other instances to prove that hepatic often occasion enteritic disorders, which prove mortal, even before the liver itself had become extensively

disorganized. Examples of such affections are to be found, indeed, in no small numbers, in the works of Bonet, Morgagni, and Lieutaud.

In the third place, the enteritis which follows upon cholera morbus, and ileus, as well as that which takes place in dysenteric affections, ought to be carefully distinguished from the idiopathic inflammation; for these last maladies are especially dependent upon hepatic derangement. Mr. Maddison, secretary to the English embassy for the treaty of Amiens, was affected, very soon after his arrival at Paris, with an extremely violent pain in the bowels, which I judged to be of hepatic origin. The disorder was subdued, but the subject of it continued for a long time to have a yellow skin; and he resumed his official labours. Some time afterwards, when apparently in good health, he felt a sharp pain in the right hypochondria, accompanied by vomitings. The abdomen was exceedingly tender, and the urine was suppressed. The complaint was treated as one of common inflammation of the bowels. Blood-lettings, warm baths, and emollient drinks, were had recourse to; every thing was unavailing. The patient died on the fourth day. The death of this individual caused a considerable sensation in Paris. It was confidently reported that he died of poison.

The body was opened, by order of the government, in my presence, by the Surgeon of the embassy, Mr. Macdonel. The liver was found very large, as well as the gall-bladder, which last viscus was full of blackish bile, containing, likewise, some biliary concretions, and its parietes were thickened and highly injected; the stomach was inflamed throughout its whole mucous membrane; the small intestines were purple, and their mucous membrane corroded in several parts of its surface. In the intestines was likewise contained a blackish liquor, similar to that which was found in the gall-bladder.

My own opinion, and that of my colleagues on this case, was, that death had been occasioned by a cholera morbus, resulting from an affection of the liver, symptoms of which had previously manifested themselves in an unequivocal manner.

Fourthly, In malignant fevers, and especially in typhus, Physicians have noticed the presence of inflammation in the bowels, but they have neglected to appreciate hepatic disorder as connected with the disordered series of actions. I have but little doubt that more attention given to this point would have served to show that the hepatic derangement has the most to do on these occasions in originating the intestinal

irritation. Sometimes, indeed, dissections after death from typhus, actually show a morbid condition of the liver, without even any observable change in the intestinal canal.

II.

An Account of a Severe Attack of Apoplexy.

By M. Deloudre.

At the commencement of May last, which was a day of extreme heat, I was going, about four in the afternoon, towards St. Germain, when I observed, in the great court of the Louvre, a group of persons who appeared to be much affected by some extraordinary occurrence. Upon my arrival at the spot, I found a man on the ground, apparently about fifty years old, deprived entirely of consciousness. The livid black appearance of his countenance, and the sanguineous frothy matter which issued from his mouth, rendered the nature of the attack sufficiently evident. I observed among the bystanders our respected colleague, M. Breschet; and, upon conversing together respecting the unfortunate subject before us, we agreed that a sudden effusion of blood had taken place on the brain; the pulse was almost imperceptible. We therefore conceived that the disorder was beyond the reach of medicine, and under this feeling left the spot. But in consequence of one of those impulses which are so natural to our profession, after having retreated some little distance, I returned to the unfortunate in question, with a view to make a sort of hopeless experiment as to the available nature of treatment.

Having ordered the man to be conveyed on a shutter to a more convenient situation near the *Pont des Arts*, I made a large opening in a vein on the arm, and ordered a napkin to be applied to the head, dipped in cold water. After some minutes, the man whom we had thought moribund, opened his eyes in apparent astonishment, and very soon after, the blood continuing to flow from the vein, he began to speak, but evidently with great confusion in his intellect; by degrees both respiration and circulation were restored to their wonted freedom and regularity.

At the end of about a quarter of an hour, after the loss of about two pounds of blood, his memory and understanding were restored, and the left side, which before the venesection was completely paralysed, became moveable. He was now able to tell us his name and residence, and we placed him in a coach, and conveyed him to his house in Anjou-Dauphiné Street.

There, placed on a bed, I ordered incessant effusions of iced water on his head, and he drank lemonade made likewise with iced water, and in five hours I left him; upon returning three hours after, I found him disposed to sleep, the pulse beating full and hard, and the surface of the body highly coloured. I now took from his arm another pound of blood, from which he expressed much relief. During the whole of the night he was calm, but did not sleep; he felt thirsty, and had an evacuation from the bowels without any assistance from medicine.

On the next day I found the countenance serene, and the pulse soft and regular. No weakness was felt. A desire was expressed for some food, and some broth was allowed.

The following is the history he was now able to give of himself:—

About three months since he returned from Egypt, whither he had been upon some commercial speculation, and where he had left his family. He had observed that a cutaneous eruption, which was considered the consequence of the climate, had disappeared since his residence in France, which was doubtless occasioned by the change in the temperature to which he was exposed. From the moment that these eruptions declined, his head had become heavy and painful, and occasionally he was actually vertiginous, with considerable and repeated noises in his head.

On the evening prior to the attack, he had nearly fallen as he was walking along, but his senses soon returned. In the morning he repaired to the observatory, where he made a light breakfast with a friend; and on returning through the Luxembourg gardens towards noon, a flow of blood towards his head forced him to rest some time upon a bench. During the day he took several walks in the city, and was returning to his lodging about four o'clock, when he was seized in the manner above described. It was with some difficulty that we could make him believe that he was seized in the court of the Louvre; he recollected having found himself unwell in the Luxembourg, and he could hardly be persuaded that it was not there that he required the aid of medicine.

I continued to visit this man for the four subsequent days, and on the sixth from the attack, I left him in a very satisfactory state, with written directions with respect to that mode of living which would be the most likely to insure him against future attacks.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

Analysis of Verdigris.—By R. Phillips, F.R.S.E. &c.

Having lately had occasion to make some inquiry into the different methods of preparing acetic acid, my attention was of course particularly directed to acetate of copper, as one of the substances from which it has been often procured. Upon referring to the more recent chemical authors to ascertain its composition, I could not find that any analysis of it had been made since that given by Proust, according to which crystallized acetate of copper consists of

Acetic acid and water	61
Peroxide of copper	39
	100

From this statement, it is not possible to learn the quantity of real acid contained in the salt; I made, therefore, some experiments to determine this point. Acetic acid does not form with any substance a sufficiently insoluble compound to enable us to determine its equivalent with precision, nor can the whole of it be obtained by distillation; I adopted as a substitute the following method: One hundred grains of crystallized acetate of copper were dissolved in distilled water; excess of hydrate of lime was added to the solution, and the mixture boiled. The oxide of copper precipitated, and the undissolved lime, were separated by the filter; through the clear solution, containing excess of lime, I passed a current or carbonic acid until the lime was precipitated, and I then heated the solution to separate any carbonate of lime which might have been re-dissolved by the carbonic acid. Having filtered the solution, I found it to be neutral acetate of lime, and then decomposed it with carbonate of soda, which gave 48·5 grs. of carbonate of lime. On repeating the experiment, I obtained 48·6 grs. the mean being 48·55. One hundred grains of crystallized acetate of copper were dissolved in water, and boiled with excess of potash. The peroxide of copper precipitated, weighed, after washing and drying, 38·9 grs. On repetition I procured 39·5 grs. giving a mean of 39·2 grs.

According to Dr. Thomson, an atom of acetic acid weighs 63·75; and I am satisfied, from various experiments, that it is very nearly correct; and if we consider this acid to be composed of three atoms of hydrogen, three of oxygen, and four of carbon, as is generally admitted, it will be represented by 63·96 on Dr. Wollaston's scale, agreeing almost precisely with Dr. Thomson's determination. If then 63 of carbonate of lime, the number representing it on the scale, give 63·96 for acetic acid, 48·55 the carbonate of lime resulting, as above described, from the treatment of 100 grs. of acetate of copper, will indicate 49·2 of acetic acid; so that we may consider crystallized acetate of copper as composed of

Acetic acid	49·2
Peroxide of copper	39·2
Leaving for water	11·6
	100·0

If, as is generally admitted, peroxide of copper be a compound of two

atoms of oxygen 20, and one atom of copper 80, the atomic constitution of verdigris will be :

	By theory.	By experiment.
2 atoms of acetic acid	127·92	128·84
1 atom of peroxide of copper	100·00	102·65
3 atoms of water	33·96	30·39
	261·88	261·88

Dr. Thomson has lately shown, that the salt called blue vitriol is a bisulphate of copper; and in addition to the reasons which he has assigned for this opinion, I may add, that if finely divided carbonate of lime be added to a solution of it, insoluble sulphate of copper is precipitated with effervescence, and as the same effects are produced with the soluble nitrate and muriate of copper, and with the acetate also, although very slowly, I think we may conclude, that the soluble nitrate and muriate, as well as the sulphate and acetate, are bisalts.

Reply to Dr. Yelloly's *Remarks on the Estimate of Mortality from the Operation of Lithotomy.* By W. Prout, M.D. F.R.S.

In reply to Dr. Yelloly's remarks on my estimate of mortality from the operation of lithotomy in your last number, I beg leave to observe, that the adoption of the ratio alluded to is not the result of inadvertency, but design. My object is to give a mean which, in the present improved state of surgery, shall tolerably well serve for the whole kingdom. The data we possess are obviously too imperfect to admit of this being done with much precision, and the ratio actually deducible from them (viz. 1 in about $6\frac{1}{4}$) seems, when all the circumstances are duly considered, to exceed the truth. On the other hand, the ratio deducible on general principles from the same data, though of course not necessarily more correct than the actual one, happens to coincide more nearly with my views; hence, (and as I am also reasoning *generally*,) I give it the preference *.

The circumstance which renders the data in question particularly defective, is their not including the metropolis, where, according to Mr. Smith's estimate, two-fifths of the whole number of operations in the kingdom are performed. We have no means of obtaining correct information on this point, which is much to be regretted; but when we take into account the acknowledged skill of our surgeons, and the fact that nearly one-half of the above proportion of cases are private, in which, of course, every circumstance that united extraordinary skill and attention can devise to ensure success, is attended to; we cannot hesitate, I think, to draw the conclusion, that the rate of mortality is as favourable, if not more so, in London, as in any part of the country. This circumstance, if admitted, will tend to diminish considerably the general ratio of mortality; perhaps, reduce it to 1 in 7, or upwards, even according to the usual mode of estimation, by taking the average of a number of past years. But this mode of estimation is not exactly applicable to my purpose. I wish to represent the rate of mortality as it exists *at this time*, when I am willing to believe the surgical art is more

* *Means*, generally speaking, are correct in proportion to the number of observations. Thus, from the multiplied observations of the Bristol data, the mean deduced on general principles differs very little from the actual mean, though both are evidently very far below the general mean, as applicable to the whole kingdom. On the other hand, the mean, as deduced on general principles from the Norfolk data, happens to considerably exceed the actual mean, the periods of observation being only two (viz. *before* and *after* puberty). This error in excess, however, though of a different kind, serves, in the final generalizalition, to counteract the error of deficiency in the Bristol data.

perfect than at any former period: this, if admitted, will allow a still further reduction in the rate of mortality; so that upon the whole, I trust the ratio given does not much exceed the truth, and if it does, I acknowledge that I feel much less regret, in falling into an error on this side of the question than the other.

Such are the principal reasons which induce me to prefer the general ratio I have given, to that actually resulting from my imperfect data. I do not mean to assert that they are absolutely conclusive, but, on the contrary, willingly admit, that there is room for diversity of opinion on the subject. Every one, therefore, must decide for himself.

From the summary nature of my little volume, the above has been omitted, as well as a great deal more on some other points, which I fear will, in consequence, be liable to be misunderstood. I hope, however, to have it in my power to obviate this objection at no very remote period.

Analysis of Indian Corn.

Dr. Gorham, of Harvard University, Cambridge, U. S. has analyzed Indian Corn. It appears to contain a peculiar vegetable substance, which the discoverer has called Zeine. The results of the analysis are as follow:

	Common state.		Dry state.
Water	9·0		
Starch	77·0	....	84·599
Zeine	3·0	....	3·296
Albumen	2·5	....	2·747
Gummy matter	1·75	....	1·922
Saccharine matter	1·45	....	1·593
Extractive matter	0·8	....	0·879
Cuticle and ligneous fibre	3·0	....	3·296
Phosp. carb. sul. of lime and loss	1·5	....	1·648
	100·0	....	99·980

(*From Thomson's Annals of Philosophy.*)

COPY OF THE REPORT

TO THE SECRETARY OF STATE FOR THE HOME DEPARTMENT, FROM THE NATIONAL VACCINE ESTABLISHMENT, DATED 12TH APRIL, 1821.

TO THE RIGHT HONOURABLE

LORD VISCOUNT SIDMOUTH,

Principal Secretary of State for the Home Department, &c. &c. &c.

NATIONAL VACCINE ESTABLISHMENT,
Percy Street, April 12th, 1821.

MY LORD,

It is with great regret we announce to your Lordship, that the small-pox has occasioned the loss of many lives in various parts of the united kingdom since our last report; and that not less than 792 persons have died of that distemper within the bills of mortality, in the course of the last year. This is about one-third of the average number of those who perished annually in the metropolis before the introduction of vaccination; but so many deaths afford a strong presumptive proof that great prejudices still prevail against vaccination, and that the benevolent designs of the Government are still far from being accomplished.

This Board has laboured incessantly to set forth the comparative ease and safety of the indisposition of vaccination, and the difficulty and danger of the small-pox, whether occurring naturally or occasioned by inoculation; and it has been assisted most importantly, and in the true spirit of disinterested benevolence, by the Master, Governors, and Members of the Court of Assistants of the Royal College of Surgeons, who have bound

themselves individually to each other, by a solemn engagement, not to yield to any solicitations to inoculate for the small-pox. This good example has been followed by most of the respectable Practitioners in the country; though some of them, we are sorry to say, have lent themselves improvidently to this injurious practice. And we find that the multitude, in many places, has been so infatuated, as to accept the proffered services even of itinerant inoculators, in spite of their gross ignorance of all disease, and of the rudeness and inaptitude of the instruments which they employ to insert the poison. Hence a perpetual source of contagion is supplied and kept up, to the constant danger of all such as have not yet been vaccinated, or who may have undergone an imperfect process, or whose peculiarity of constitution makes them still susceptible of the variolous disease; a peculiarity similar to that which renders some persons capable of taking the small-pox twice; of which, within the period of three years only, we have received evidence of not less than fifty-two instances.

It is true, indeed, my Lord, that we have received accounts from different parts of the country, of numerous cases of small-pox having occurred after vaccination; and we cannot doubt that the prejudices of the people against this preventive expedient are assignable (and not altogether unreasonably perhaps) to this cause.

These cases the Board has been industriously employed in investigating; and though it appears that many of them rest only on hearsay evidence, and that others seem to have undergone the vaccine process imperfectly, some years since, when it was less understood, and practised less skilfully than it ought to be, yet, after every reasonable deduction, we are compelled to allow that too many still remain on undeniable proof, to leave any doubt that the pretensions of vaccination to the merit of a perfect and exclusive security in all cases against small-pox, were admitted at first rather too unreservedly. Yet the value of this important resource is not disparaged in our judgment; for, after all, these cases bear a very small proportion to the number of those who are effectually protected by it. The reports of the vaccinators at the several stations in the metropolis, give only eight cases of small-pox, out of nearly 67,000 vaccinated by them, since the first establishment of this Board; and, as the small-pox has prevailed extensively in London, these persons so vaccinated must have been frequently exposed to contagion, and consequently the protecting effect of vaccination must have been submitted to as severe a test as can well be imagined. Moreover, we have the most undoubted proofs, from experience, that where vaccination has been performed perfectly, small-pox occurring after it is almost universally a safe disease; and though ushered in by severe symptoms, has hardly ever failed to be cut short, before it had reached that period at which it becomes dangerous to life.

This controlling power of vaccination must be admitted as next in importance to its preventive influence; and surely justifies our high estimation of the value of this great discovery.

The Board has taken care to promulgate to all its correspondents, by repeated admonitions, those modes of conducting the process of vaccination, which ample experience within its own immediate sphere of observation, has ascertained to be the most successful.

It cannot be denied, my Lord, that the continuance of the practice of inoculation for the small-pox is the main source of whatever disappointment we have met with; for in those countries where the legislature has interfered to prohibit it, and to enforce vaccination, the small-pox has become almost unknown, and the full benefit of this valuable discovery is enjoyed; but similar results, we know, cannot be looked for in the united kingdom, until the whole community shall concur voluntarily in this salutary practice.

We have only to add, that 6933 persons were vaccinated last year at the several stations in London; that 48,105 charges have been given to the public, and that 77,467 have been vaccinated in Great Britain and Ireland,

by our immediate correspondents only, making a total of 84,400 vaccinated last year, a number superior to that of any former year.

HENRY HALFORD, PRESIDENT.

RICHARD POWELL, M.D.
JOHN COOKE, M.D.
WILLIAM MACMICHAEL, M.D.
P. MERE LATHAM, M.D.
} Censors of the Royal College of Physicians.

T. FORSTER, Master of the Royal College of Surgeons.

EVERARD HOME,
WILLIAM BLIZARD,
} Governors of the Royal College of Surgeons.

By order of the Board,

JAMES HERVEY, M.D., Registrar.

We beg permission to subjoin the Declaration of the Members of the Royal College of Surgeons.

APPENDIX.

ROYAL COLLEGE OF SURGEONS.

We, the undersigned, Master, Governors, and Members of the Court of Assistants of the Royal College of Surgeons in London, deeply impressed with the many fatal instances of small-pox which daily occur in the metropolis, and in various parts of the kingdom, assured that such results are in a great degree consequences of the support and propagation of that disease by inoculation, and unshaken in our confidence of the efficacy of vaccination in exterminating small-pox, from a sense of duty to the community, hereby renew the engagement entered into by us in the year 1813, not to inoculate small-pox, but to pursue, and to the utmost of our power promote, the practice of vaccination.

And we earnestly recommend to all members of the college similar engagements; convinced that the entire extinction of small-pox would be the happy result of the suppression of inoculation of that disease, and the universal adoption of vaccination.

Lincoln's-Inn Fields,
the 13th day of October, 1820.

THOMSON FORSTER, Master.

EVERARD HOME,
WILLIAM BLIZARD,
} Governors.

GEORGE CHANDLER,
T. KEATE,
J. HEAVISIDE,
HENRY CLINE,
DAVID DUNDAS,
WILLIAM NORRIS,
JOHN A. HAWKINS,
F. KNIGHT,
LUDFORD HARVEY,
WILLIAM LYNN,
JOHN ABERNETHY,
ASTLEY PASTON COOPER,
WILLIAM LUCAS,
T. CHEVALIER,
JAMES WILSON,
JOHN GUNNING,
H. LEIGH THOMAS.

MEDICAL BENEVOLENT SOCIETY.

On Saturday, the 19th of May, was held at the Freemasons' Tavern, the fifth anniversary festival of this society, under the patronage of his Royal Highnesss the Duke of Sussex.

His Royal Highness being unable, through indisposition, to honour the society by his personal attendance, the chair was taken by the President, Dr. Latham, and supported by Sir John Doyle, bart. K.C., an honorary member, and Dr. Baillie. The company was numerous, and highly respectable; the entertainment was in every respect suitable to the occasion, and did great credit to the liberality and attention of the stewards.

Though no collection was made, yet many very handsome donations, amounting to between £50. and £60. were announced by the treasurer, among which were ten guineas from Dr. Baillie, and the like sum from Sir Matthew Tierney, bart. M.D. The names of several gentlemen were declared as candidates to become members. It is truly gratifying to observe the flourishing state of this society, which, though of only five years' duration, consists of more than 200 members, and is daily increasing. There can be no doubt but that the benevolent purposes for which it was designed will be fully answered, and that the poorer and more afflicted members of the Medical Profession may look up to it with confidence, as offering them suitable means of relief under such circumstances of distress, as will too often occur, notwithstanding the most strenuous endeavours on their part to prevent them.

VACCINATION.

To the Editor of the Medical Repository.

Sir,—I observe in the last Number of the Repository, that it is intimated to be Dr. Jenner's intention to "take up the inquiry" respecting the interference of cutaneous affections with the correct formation of the vaccine vesicle. I have full authority to state, that though the whole of his opinions and observations have not been developed, on account of their daily increase, and the additional light thrown upon the subject, by the investigations and incidents which occur to others; yet it ought not to be deemed an inquiry now taken up, since the outline was divulged as long ago as 1803, in a letter to Dr. Marcet, published in the London Medical and Physical Journal for that year, and in subsequent communications alluded to in the circular. The accumulation of very interesting corroborative evidence, antecedent to and in reply to the recent circular, as well as the results of exquisite attention to the subject by the discoverer, will probably give birth to an exposition, second only in importance to the original discovery, and calculated to advance our knowledge of the most obscure and minute physiological laws, which affect the prophylactic action of these two grand animal poisons on the human body, viz. the vaccine and variola, as well as their natural origin.

Practitioners cannot too fastidiously regard those singular coincident cutaneous actions arising from serous affections of the skin, which have such various influence in modifying the vaccine protection, as in the want of this accurate observation, they will find by far the most fruitful source of what are called varioloids. Stress is laid in your General Review on the influence of the whitlow, as related by Dr. Jenner; but the intervention of purulent fluids is not confined to the notice of a solitary instance. It is probable that they do not oppose an equal counteracting influence with the serous, but certainly such influence is by no means rare.

I have the honour to be,

Very faithfully yours,

Berkeley, June 10, 1821. J. FOSBROKE.

CITY OF LONDON LYING-IN CHARITY.

In the above charity, for delivering poor married women at their own houses, conducted by Mr. Greening, of Aldersgate Street, the number of applications during the last three months, from the beginning of April to the end of June was 106, and the number of deliveries 97; of which there were 87 natural labours, 2 instrumental, 4 complex, 5 premature and abortions.

The instrumental cases were both effected by the forceps, the women having been in labour a considerable number of hours, and greatly exhausted.

The four complex cases were two of twins, in which the heads of each presented; and two where the placenta was attached to one side of the cervix uteri: they both went on to their full time, and were delivered without any symptom to excite alarm, either in labour, or after their delivery.

In one of the premature cases, where hæmorrhage had ensued, and the pulse had become affected, it was expedient, as soon as the os uteri was sufficiently dilated to admit the two fore-fingers to deliver the child, which was facilitated with ease.

Nothing has prevailed this quarter to render any further remarks of much practical utility.

The number of children were, males 51; females 46.

Dr. Conquest has been elected physician accoucheur to the City of London Lying-in Hospital, City Road, vice Dr. Gooch, who has resigned.

LITERARY NOTICES.

The first volume of Mr. A. T. Thomson's Lectures on Botany is almost ready for publication. It will contain the descriptive anatomy and physiology of those organs which are necessary for the growth and preservation of the plant, as an individual; and will be illustrated by more than one hundred wood-cuts, and ten copper-plates. It is intended to form the first part of a complete system of Elementary Botany.

Mr. Shaw has in the press a small volume, containing the rules prescribed to the students in the Hunterian school of Great Windmill Street, for investigating the structure of the human body. In this volume are exhibited the Elementary Views of Anatomy, as well as the Relations of the Subject to Pathology and Surgery.

Dr. Conquest will publish, in a few weeks, a second and enlarged edition of his Outlines of Midwifery, &c. with Copper-plate, instead of Lithographic Engravings.

The Quarterly Journal of Foreign Medicine and Surgery, and the Sciences connected with them, No. XI., will be published on the 1st of August.

In the course of this month will be published, Third Edition, almost entirely rewritten, and greatly enlarged, The Influence of Tropical Climates on European Constitutions, including an Analytical and Critical Review of the best Writers on the Diseases of the East and West Indies. By James Johnson, M.D., Licentiate of the Royal College of Physicians of London, and Editor of the Medico-Chirurgical Review.

Just published, a Syndesmological Chart; or, a Table of the Ligaments of the Human Skeleton. By J. Dickinson, M.D.

NOTICES OF LECTURES.

Theatre of Anatomy, near St. Thomas's and Guy's Hospitals, Borough.—Mr. Grainger will commence his autumnal course of Lectures on Anatomy and Physiology, at his new Anatomical Theatre, Webb Street, Maze Pond, Borough, on Tuesday the 2d of October, 1821, at eleven o'clock in the morning.

Dr. Armstrong will commence, at the same Theatre, a Course of Lectures on the Principles and Practice of Physic, on Wednesday, October 3, 1821, at half-past nine o'clock in the morning.

For particulars, apply to Mr. Grainger, 13, St. Saviour's Churchyard, Borough; and to Dr. Armstrong, 39, Southampton Row, Russell Square.

A METEOROLOGICAL TABLE,

From the 21st of MAY to the 20th of JUNE, 1821.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Min.		Therm. Max	Min.	Rain Gauge	Winds.	Weather.
21	29	78	29	72	59	34		NW.NE.	1 Sun. 4 Starl...
22	29	68	29	62	54	34		N.NE.	1 Cloud... 4 Starl..
23	29	65	29	65	53	33		N.NE..	13 Sun.. 2 Cloud... 4 Star...
24	29	66	29	50	54	35	02	NW.N.	1 Sun.. & Sh. of h. 4 Cl...
25	29	41	29	40	49	29	11	SW.N.	1 S. of h. 3 Su. & s. of r. 4 St. & S..
26	29	52	29	51	51	34	01	NW..	1 Snow. 2 Sun.. & Sh. of ra.
27	29	56	29	54	52	38	12	W..N..	1 Sun.... 2 Sh. of r.. & Sun..
28	29	67	29	64	55	37	07	NW.N.	1 Sun.. & Sh. of ra. & hail.
29	29	88	29	80	60	38		NW.NE.	1 Sun..
30	29	92	29	90	60	37		NE.	1 Sun...
31	29	87	29	83	62	45		E.	14 Cloud... 23 Sun.
1	29	81	29	79	71	47		E.N.	14 Cloud.. 23 Sun..
2	29	78	29	73	62	46		NE..E..	1 Sun...
3	29	62	29	53	67	45		NE.E. by S.	1 Sun...
4	29	49	29	46	64	55		N.NE.	134 Cloud.. 2 Sun.
5	29	44	29	42	57	47	16	N.	1 Shower of Rain..
6	29	47	29	40	66	47		W..	1 Sun..
7	29	42	29	36	67	42	19	NE.	1 Sun. 2 Sh. of ra.. 4 Clo...
8	29	54	29	45	56	38		NNE.	14 Cloud.. 23 Sun.
9	29	42	29	40	57	38	13	NW..	1 Sun.. 3 Show. of Rain..
10	29	68	29	62	57	44	50	N..E..	1 Sun.. & Sh. of ra.... & h..
11	29	89	29	86	60	41	03	N.NE.	1 Show. of Rain. and Sun.
12	29	95	29	93	55	44	02	N.	1 Show. 3 Cloud...
13	29	99	29	96	61	43		N.NE.	1 Cloud.. 2 Sun..
14	30	03	30	..	66	42		N.NE.	1 Cloud.. 2 Sun.. 4 Moon....
15	30	..	29	98	71	47		W.NE.	1 Sun.. 4 Cloud...
16	30	04	30	03	64	46		N.NE.	134 Cloud... 2 Sun.
17	30	08	30	08	60	45		NNE.	134 Cloud... 2 Sun.
18	30	09	30	02	67	46		NNE.	1 Sun... 3 Cloud..
19	29	95	29	88	62	46		N.	1 Sun.. 2 Cloud...
20	29	83	29	83	56	46		N.	1 Cloudy...

The quantity of rain during the month of May was 2 inches 93-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Anasarca, Catarrhus, Diarrhœa, Enteritis, Febris catarrhalis, Febris continua, Febris simplex, Gastrodynia, Gonorrhœa, Icterus, Lumbago, Menorrhagia, Obstipatio, Pneumonia, Rheumatismus, Scabies, Syncope, Vaccinia and Vertigo.

MANCHESTER MEDICAL SOCIETY

THE METEOROLOGICAL JOURNAL,

From the 20th of MAY, to the 19th of JUNE, 1821,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, *High Holborn.*

D.	Moon.	Rain.	Therm.	Barom.	De Luc's Hygrom.	Winds.		Atmo. Variation.		
20			48 52 41	30 20 30 21	57 57	NE	NE	Clo.	——	——
21		,08	45 53 40	30 00 30 05	60 57	E	ENE	Fine	Clo.	Fine
22			43 54 43	30 02 29 93	55 53	ENE	NE	Fine	——	——
23		,03	47 55 38	29 78 29 91	54 55	NE	N	Clo.	Sho.	——
24	☾	,03	44 52 42	29 96 30 04	55 53	N	N	Fine	Sho.	Clo.
25		,07	49 55 40	29 96 29 76	54 55	WSW	W	Fine	——	Rain
26		,02	42 58 39	29 78 29 86	54 54	NW	NNW	Fine	Sh.sl	Clo.
27		,10	48 58 43	29 92 29 95	53 55	NW	SW	Fine	Sho.	Rain
28		,09	49 58 44	29 95 30 07	55 55	WNW	WSW	Fine	Sho.	Clo.
29			48 57 48	30 12 30 22	56 53	W	NE	Clo.	Fine	Clo.
30			54 58 45	30 23 30 21	53 54	E	ENE	Fine	——	——
31	☽		51 57 50	30 15 30 11	54 55	NE	NE	Fine	——	——
1			54 63 54	30 06 30 06	58 57	E	ENE	Fine	——	——
2			62 68 54	30 02 29 96	55 51	NE	NE	Fine	——	——
3			59 66 58	29 90 29 81	55 56	ESE	ENE	Clo.	Fine	——
4		,21	56 62 54	29 71 29 70	59 56	ENE	WNW	Rain	Fine	——
5		,30	58 68 55	29 76 29 82	57 55	WNW	SW	Fine	——	Rain
6		,24	58 69 56	29 88 29 85	57 58	W	SW	Clo.	Rain	Sho.
7	☽	,41	59 62 53	29 82 29 63	57 57	SW	WSW	Clo.	Rain	——
8		,25	54 54 45	29 63 29 85	58 56	NNE	NNE	Rain	Sho.	Clo.
9			52 56 46	29 85 29 81	54 55	W	W	Clo.	Rain	Sho.
10		,24	50 52 44	29 76 29 84	55 56	W	NNE	Clo.	Sho.	Rain
11		,29	49 51 46	29 90 30 10	56 57	NE	N	Fine	Sho.	Rain
12			51 57 48	30 20 30 28	56 56	NE	NNE	Fine	Clo.	——
13			54 58 46	30 25 30 27	56 56	N	NNE	Clo.	——	Fine
14			52 59 50	30 30 30 36	55 56	NNE	NNE	Clo.	Fine	——
15	☉		54 63 54	30 34 30 27	57 56	NNE	NE	Fine	——	——
16		,05	56 60 50	30 23 30 28	57 56	NE	NNE	M.r.	Fine	Clo.
17			54 59 51	30 31 30 32	56 56	ENE	ENE	Clo.	Fine	Clo.
18			53 63 49	30 33 30 31	56 57	NE	NNE	Clo.	Fine	——
19		,02	53 64 50	30 25 30 16	56 53	NE	NNE	Fine	——	——

The quantity of rain fallen in the month of May is 1 inch and 59-100ths.

A REGISTER OF DISEASES

Between MAY 20th and JUNE 19th, 1821.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	10		Fungus	1	
Abscessio	11		Furunculus	1	
Acne	1		Gastritis	1	
Amenorrhœa	8		Gastrodynia	10	
Amentia	1		Gonorrhœa *pura*	3	
Anasarca	10	3	Hæmatemesis	4	1
Aphtha *lactentium*	2		Hæmoptöe	12	
Apoplexia	4	2	Hæmorrhois	3	
Ascites	5	2	Hemiplegia	2	1
Asthenia	10		Hepatitis	15	1
Asthma	19	2	Hernia	5	
Atrophia	5		Herpes *Zoster*	2	
Bronchitis *acuta*	10		Hydrocele	1	
——— *chronica*	7		Hydrocephalus	5	2
Cancer	1		Hydrothorax	4	1
Cardialgia	6		Hypochondriasis	2	
Carditis	4	1	Hysteria	7	
Catarrhus	30		Ichthyosis	1	
Cephalalgia	13		Icterus	2	
Cephalæa	1		Impetigo *erysipel.*	1	
Chlorosis	2		Ischias	8	
Chorea	1		Lepra	3	
Cholera	8		Leucorrhœa	7	
Colica	4		Lithiasis	1	
——— *Pictonum*	2		Mania	4	
Cynanche *Tonsillaris*	18		Menorrhagia	19	
——— *Parotidea*	4		Miliaria	2	
——— *Laryngea*	2		Morbi Infantiles*	20	1
Diarrhœa	17		——— Biliosi*	20	
Dolores *abdom.*	4		Obstipatio	9	
——— *lateris sinist.*	4		Odontalgia	14	
Dysenteria	6		Ophthalmia	16	
Dyspepsia	17		Otalgia	4	
Dysuria	2		Palpitatio	7	
Eczema	1		Paralysis	9	
Enteritis	3	1	Peripneumonia	8	
Entrodynia	3		Peritonitis	10	
Epilepsia	3		Pertussis	4	
Epistaxis	5		Phlogosis	1	
Erysipelas	7		Phthisis Pulmonalis	19	5
Erythema *læve*	2		Pleuritis	12	
——— *nudosum*	1		Pleurodyne	10	
Febris *Intermittent*	14		Pneumatosis	1	
—— *catarrhalis*	13		Pneumonia	14	4
—— *Synocha*	1		Podagra	4	
—— *Typhus mitior*	3	2	Porrigo *larvalis*	2	
—— *Typhus grav.*	1		——— *favosa*	2	
—— *Synochus*	10		Prolapsus	3	
—— *Remit. Infant.*	12		Prurigo *mitis*	2	
Fistula	1		——— *senilis*	2	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Psoriasis *guttata*	1		Syphilis	6	
Pyrosis	3		Tabes Mesenterica	8	2
Rachitis	1		Tic Douloureux	1	
Rheuma *acutus*	15		Vaccinia	20	
——— *chronicus*	25		Varicella	2	
Rubeola	5		Variola	28	9
Scabies	48		Vermes	10	
Scarlatina *simplex*	16		Vertigo	11	
——— *anginosa*	7		Vomitus	1	
Scirrhus	1		Urticaria *evanida*	1	
Scrofula	4				
Splenitis	2		Total of Cases	654	
Strictura	4		Total of Deaths	———	31

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases, &c.

" Eleven of the cases of small-pox here reported, were confluent, and most of them were accompanied with petechiæ, and one after vaccination, at the Institution in Broad Street, Carnaby Market."—J. Burgess.

How distressing it is thus to witness the increasing prevalence every month of small-pox! Let us be permitted to urge it, as a duty incumbent on medical Practitioners, to resist, as far as in them lies, the public tendency towards undue scepticism, with respect to the merits of vaccination. It is not, of course, desirable, that the question be met in any but the most candid and open way; but it is to be hoped, that there are very few in the ranks of the Profession, who do not feel that the cause of vaccination, thus argued, and thus treated, would prove triumphant.

Scarlatina has been pretty general during the preceding month; but, for the most part, it has proved by no means malignant. It appeared in a decided form, some months since, in an individual of a family, every member of which had previously been affected. At that time, it was confined to the single individual, although every member of the family had free intercourse with him. During the last week, a second child of the same family has had the disorder, and with more violence than was the case with the other. Would these children (having been vaccinated) have been susceptible of a variolous endemic, in the ratio of their demonstrated susceptibility to a second influence of the scarlatina virus? Are there any cases on record of second scarlatina ever proving fatal?

MONTHLY CATALOGUE OF BOOKS.

Observations on Sulphureous Fumigations as a powerful Remedy in Rheumatism, &c. &c. By —— Wallis. 8vo. Price 3s. 6d.

Elements of Medical Logic. Illustrated by Practical Proofs and Examples. Second Edition, with large Additions, particularly in the Practical Part. By Sir Gilbert Blane, Bart., Physician to the King. 8vo. Price 8s.

The Principles of Foreign Medicine, systematically arranged, and applied to British Practice. By John Gordon Smith, M.D. 8vo.

A Practical Essay on Ring Worm of the Scalp, Scald Head, and other species of Porrigo, &c. By Samuel Plumbe, Member of the Royal College of Surgeons, and of the Medico-Chirurgical Society, &c. 8vo.

New Edition of Hamilton on Diseases of Infants. 8vo. Price 7s.

New Edition of Hamilton on Diseases of Females, 8vo. Price 10s. 6d.

A Treatise on Scrofula. By E. A. Lloyd, Member of the Royal College of Surgeons. 8vo. Price 9s.

Stow's Toxicological Chart. Third Edition. Just published.

Dr. Forbes, of Penzance, has in the press, and will be shortly published, a Translation of Laenec on Auscultation, with Notes, &c.

An Address to the Public on Vaccination, &c. By B. Grainger, Surgeon, 8vo.

Nearly ready, Dr. Prichard on the Diseases of the Nervous System. Vol. 1. 8vo. Comprising Convulsive and Maniacal Affections. Illustrated by numerous Cases.

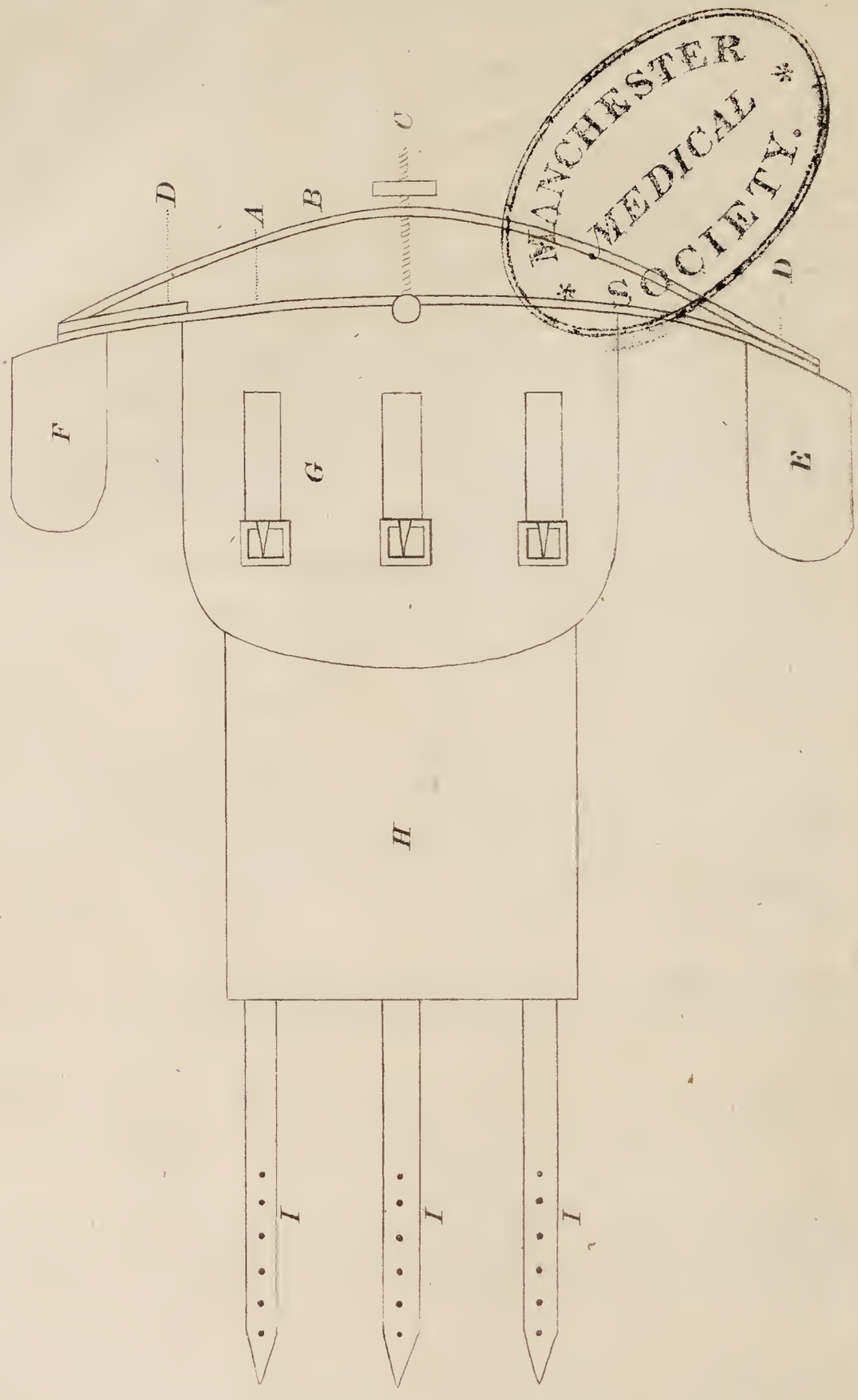
NOTICES TO CORRESPONDENTS.

Communications have been received this month from Dr. Kennedy, Mr. Hickman, *and* Nec temerè. Medicus *has our best thanks for his kindness; the publication to which he alludes will do harm to itself more than to others by its virulence.*

Dr. K. requests us to correct some errors in his paper, page 295 of the last volume, line 5, *for* morning, *read* evening. In line 12, *for* funis is written penis; and in line 23, the words *seven o'clock* have been omitted after *by*.

In the last Number, the word Melæna is printed Milæna at page 492.

*** *Communications are requested to be addressed (post paid) to* Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*



MANCHESTER MEDICAL SOCIETY.

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THE

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PART I.

ORIGINAL COMMUNICATIONS.

I.

On Inflammation. By Whitlock Nicholl, M. D., &c. &c. &c.

Definition of the term Inflammation.

Inflammation is a term made use of to designate the existence of certain conditions of any portion of the body, such several conditions existing at the same time in the same part. These conditions are the following: increased sensibility, pain, increased heat, increased redness. When these several symptoms have their seat at the same time in any given part, such part is said to be *inflamed*, to be in a state of *inflammation*. Superadded to these conditions, there is usually increased throbbing of the arteries of the *inflamed* part.

The term inflammation, then, is used to denote the presence of certain φαινομενα, or sensible conditions, without having any reference to the causes from which such conditions arise. Thus it happens, that, although pathologists have disagreed as to the precise nature of those causes, the term inflammation continues to be used, and is understood by all, since it is a term employed, by common consent, to denote the presence of certain conditions, the existence of which is evident to the senses of all men.

The several conditions, (to which, when existing in conjunction, the term inflammation is applied,) may exist separately. Thus, the sensibility of a part may be increased, or there may be painful sensation referred to a part, or the

heat of a part may be increased, or there may be increased redness of a part, yet the separate existence of either of these conditions does not constitute the state which is termed inflammation, for this term implies the presence of all these conditions existing in combination.

Sensibility.

Sensibility is a term which implies a certain condition of nerves, whereby they are fitted for assuming, more or less readily, certain states, in consequence of corresponding impressions which are made upon them. Such states I have termed *sensual states*. Under an increased degree of sensibility, an increased degree of sensation arises from impressions, and *vice versâ*. The sensibility of nerves in any part of the body, is dependent, partly on the temperature of that part, partly on the quantity of blood that flows through the blood-vessels which are intermingled with those nerves, and partly, also, on the quality of that fluid. An increase of temperature increases sensibility, and *vice versâ*. An increase, within certain limits, of the quantity of blood that flows through the blood-vessels of a part, causes an increase of sensibility in the nerves of that part, and *vice versâ*.

Heat.

The heat which exists in a part, is dependent not only, in some degree, upon the temperature of the surrounding medium, but also upon the state of the nerves of that part, upon the quantity of blood that flows through the blood-vessels of that part, and also upon the quality of that fluid. An increase of the temperature of a part not only increases the sensibility of the nerves of that part, but it causes an increased quantity of blood to flow into the blood-vessels of that part; while a reduction of temperature produces results the opposite of these.

Redness.

The degree of redness which is apparent in any part of the body, is dependent upon the quantity of blood that flows through the blood-vessels of that part, upon the colour of that fluid, and upon the thickness and transparency of the medium which is interposed between that fluid and the surface of the part. *Cæteris paribus*, the greater the quantity of red blood that flows through the blood-vessels of any part, the greater will be the degree of redness of that part; the greater also will be the quantity of heat which is given off from that part; and (unless such increase of quantity exceed certain bounds) the greater will be the sensibility of the nerves of that part.

It appears, then, that the several principal conditions, the united presence of which is denoted by the term inflammation, have a mutual connexion with each other, each standing, with regard to each of the others, in the reciprocal relation of cause and effect.

Arteries and Capillaries. — Tonicity and Elasticity.

The vessels, into and through which the blood flows in its passage from the heart into veins, secreting vessels, and exhalants, are not passive tubes. These vessels consist of the arteries, the minute extremities of which are termed capillaries. An artery possesses two kinds of structures. It possesses a structure which has a tendency to contract, and which, by its contraction, produces a diminution of the capacity (or calibre) of the artery. The contractile power exerted by this structure, is called the *tonicity* of an artery. An artery possesses also an elastic structure, which has a tendency to keep the vessel distended to a certain extent, but which resists efforts made to enlarge the capacity of the artery beyond such extent. The power exerted by this structure is called the *elasticity* of an artery. The tonicity of an artery is, then, opposed by the elasticity; for the latter power tends to keep the vessel pervious, whereas the former power tends to render the artery impervious. But if an effort be made to dilate the artery beyond a certain extent, the tonicity will act in concert with the elasticity, in opposing such over-distension, unless, indeed, such over-distension should cause the destruction of the tonicity.

The relative proportion between the tonicity and the size of an artery, increases in favour of the former as the latter diminishes; whereas, in the minute extremities of arteries, there is little, if any appearance of elastic structure. In proportion, then, as the arterial branches become more minute, the relative proportion of elasticity appears to decrease, while that of the tonicity increases.

In the minute extremities of arteries, then, the tonicity has little, if any elasticity opposed to it; so that, if no other power were opposed to it, the exertion of the tonic power would render those extremities impervious; and even in those arterial branches in which elasticity is opposed to the tonicity, we find that the elasticity alone is unable to counteract effectually this latter power; for, were no other power opposed also to the tonicity, the action of this latter power would render the vessel more or less impervious.

Momentum of the Blood.

But there is another power opposed to the contractile force of the arteries, and of their minute extremities, between

which power and the tonicity, a constant opposition is maintained. This power is the momentum of the blood.

The blood receives its momentum principally from the contraction of the cavities of the heart. It follows, that the degree of momentum depends upon the force with which the heart contracts; upon the frequency with which those contractions are repeated; upon the quantity of the general mass of the blood; and upon the degree of resistance which is offered to the progress of that fluid, into and through arteries and their extremities.

In those minute arterial branches which are called capillaries, then, the tonicity has to contend with the momentum of the blood only; whereas, in the larger arterial branches, the elastic power also is opposed to it. Thus, in the former vessels, the momentum of the blood is constantly endeavouring to force a passage for that fluid, while the contractile power of the vessels is as constantly opposing such endeavour. In the arterial branches which possess an elastic structure, the momentum of the blood is, in its attempts to force a passage for that fluid, aided, within certain limits, by the elasticity of the vessel; while both these powers are opposed by the tonicity.

It follows, that a less degree of momentum on the part of the blood is required to overcome the tonicity in the larger, than in the minute branches of arteries.

Quantity of Blood in Arterial Branches.

The quantity of blood that is contained in any set of arteries depends, then, on the comparative strength of the two contending powers, namely, of the momentum on the part of the blood, and of the tonicity on the part of the artery. Under a due equilibrium between these two opposing powers, a due quantity of blood is admitted into arteries. If the due balance be overturned in favour of the momentum, an increased quantity of blood will be received by arteries; whereas, if it be overturned in favour of the tonicity, the artery will more successfully resist the current of the blood, and it will, consequently, receive a smaller quantity of that fluid.

If the momentum of the blood is increased, yet, if the exertion of the contractile power of the arterial branches is increased in the same proportion, no increase will take place as to the quantity of blood that flows into those vessels. But the momentum may be increased, and the exertion of the tonicity may also be increased, but in a less proportion, in which case, a greater quantity of blood will flow into the arterial branches, in spite of their increased resistance.

It follows, then, that an increased quantity of blood may be received by arterial branches, under an increase of the momentum of the blood only, or under a diminished action of the tonicity of those branches, or under both these circumstances combined, or under an increase both of the momentum and of the tonicity, the proportionate increase of the former being greater than that of the latter.

If the capillaries offer a stronger resistance to the momentum of the blood than that which is offered by the less minute arterial branches, and if their resistance be sufficient to oppose effectually the momentum; and if, under these circumstances, the momentum continues in the same degree, it follows that a larger quantity of blood will be received by those less minute branches, the capacity of these will consequently be increased; in which case, although their tonicity may be still exerted, it will, nevertheless, be borne down by the current of the blood.

If the blood which is admitted into arteries, does not pass on from their terminations as readily, and in as great proportion as it passes into those arteries, one of two consequences must ensue. The mechanical obstruction to the flow of blood from those arteries, aided by the usual exertion of their tonicity, will effectually oppose the entrance of a fresh quantity of blood into them, at each succeeding contraction of the heart; in which case, other arteries must receive an increased share of that fluid, or the momentum of the blood will be lessened. Or it must happen that the tonicity of the obstructed arteries will yield so as to allow an increased quantity of blood to enter them.

Increased quantity of Blood in Arterial Branches.

So that the circumstances under which an increased quantity of blood is contained in arterial branches, may vary considerably. There may be increased momentum of the blood, arising from an increase of the force, or of the frequency of the contractions of the heart, or from both these, the quantity of the general mass of the blood being natural, or being increased. The increased momentum may be attended with increased, but ineffectual resistance on the part of the contractile power of the arterial branches. There may be diminished action of the arterial branches, whether of the larger branches as well as of the more minute extremities, or of these latter vessels only. There may be increased contraction of the capillaries only. Diminished action of the tonicity of arteries may be accompanied by an increased degree of momentum of the blood, or by the ordinary degree of momentum, or by diminished momentum.

Although arterial branches contain a greater quantity of blood, that fluid may circulate less quickly than before through those vessels, so that even a less quantity than usual may flow in a given time through those vessels. Or a greater quantity may flow through those vessels as freely and as rapidly as the previous smaller quantity. Or, although an increased quantity of blood is contained in arteries, an impediment may exist in a greater or less degree to the passage of that fluid from the terminations of those vessels.

Thus, then, as regarding the arteries into which an increased quantity of blood passes, there may be three states. The one, increased resistance; the increase of resistance, however, being less than the increase of momentum of the blood. The second, the usual degree of resistance; the momentum of the blood being increased. The third, a lessened degree of resistance. The first, a highly active state. The second, active, but in the usual degree. The third, a passive state.

Thus, then, the several circumstances under which an increased quantity of blood is admitted into arteries, may, as far as regards the momentum of the blood, and the resistance of the arteries, be reduced to the following heads:

Increased Momentum, with the usual state of resistance on the part of Arteries and Capillaries.
an active — Capillaries only.
a passive — Arteries and Capillaries.
Natural — Capillaries only.
Diminished — Arteries and Capillaries.

When an increased quantity of blood enters the arterial branches of any part, under any of the foregoing circumstances, there will be, *cæteris paribus*, increased redness of that part, and also an enlargement of it.

When an increased quantity of blood enters the arteries of any part, under an active state of those arteries, those vessels will yield to the finger a hard and *quick* pulsation. When under a natural resistance on the part of the arteries, the pulsation will be hard only. When under a passive state of the arteries, with increased momentum, there will be a full, hard, bounding, pulse. When, with diminished momentum, there is a passive state of the arteries, the pulse will be full but soft, and easily compressible. When there is an impeded flow through the terminations of the arteries, the pulse will be distended but oppressed.

Simple Plethora.

When there is a free circulation of an increased quantity of blood through the arteries of a part, under a natural action of those vessels, the heat of that part will be increased, the

redness of the part will also be increased, and the sensibility of the nerves of the part will be increased also. Such a state, then, presents several of the conditions of that state to which the term inflammation is applied; but such a state does not in itself constitute inflammation, but it is a state which is distinguished by the term simple plethora.

Active Plethora.

When an increased quantity of blood is contained in a set of arteries, under a highly active state of those arteries, and their capillaries, there being, of course, a greater proportionate degree of increase in the momentum of the blood, a high degree of opposition is maintained between the two contending powers. In such a case, in addition to the increased redness, there will be a great increase of heat also. Such a state does not, in itself, constitute inflammation, but it is known by the term active plethora.

Passive Plethora.

When an increased quantity of blood flows into any set of arteries, under a passive state of those arteries, there will be a less degree of heat present than in either of the former cases. Such a state is expressed by the term passive plethora.

Congestion. — Passive and Active.

When an increased quantity of blood is contained in any set of arteries, under an obstructed state of the terminations of those vessels, there will be a more or less stagnant state of the blood in those arteries, and there will be a dusky redness of the part in which they are situated. Such a state is expressed by the term congestion. In such a case, the obstructed arteries and capillaries may passively yield to the accumulating blood, or they may, by a strong exertion of their contractile force, resist the accumulation of that fluid. The former state is expressed by the term passive congestion; the latter, by the term active congestion.

Unpleasant Sensations.

If any arteries and capillaries be much distended with blood, it follows, that the nerves which are intermingled with those vessels will be subjected to an increased degree of compression by those vessels. A certain degree of increased compression of nerves gives rise to uneasy sensation; while a great degree of compression may diminish the sensibility of nerves. Thus, an increase of the quantity of blood contained in arteries and capillaries may, by causing increased compression of the neighbouring nerves, cause uneasy sensations; or if there be a great accumulation of blood in those vessels, there may be so great an increase of compression, as may diminish greatly the sensibility of those nerves.

Increased Sensibility.

Independently of the sensation which may arise from increased compression of nerves, during an increase of the quantity of blood that is received by arterial branches, it will be recollected, that I have stated, that an increased flow of blood through arteries, causes an increase of sensibility in those nerves which are in the immediate neighbourhood of those vessels. Such increased flow causes also an increase of heat; and it has also been stated, that an increase of heat causes an increase of sensibility; so that, under an increased flow of blood into arterial branches, there may be increase of sensibility of nerves, and increased compression of those nerves; from both which causes, will arise uneasy sensations, referrible to the part in which those nerves are situated.

Irritation.

Such increased compression, acting upon nerves in which an increase of sensibility is generated, may produce a condition of those nerves, which is expressed, rather than explained, by the term irritation. During such a state of the nerves of a part, there is great increase of the temperature of that part, there is a high degree of sensibility, so that painful sensations arise from impressions, which, under the natural condition of those nerves, fail to produce any degree of sensation.

INFLAMMATION.

If, then, a plethoric state of the arteries and capillaries of a part have induced, in the nerves of that part, such a state as is expressed by the term irritation, there will be increased redness of the part; the temperature of the part will be increased; the sensibility of the part will be augmented, in consequence of which, the pulsation of the arteries may produce sensation; and painful sensation will be present, which will be referred to the part; so that all those conditions of that part will be present, the united presence of which is expressed by the term inflammation.

It appears, then, that plethora of the arteries and capillaries of a part, existing in combination with irritation of the nerves of such part, produces all those conditions which are expressed by the term inflammation.

Active and Passive.

Active plethora, combined with irritation of nerves, constitutes active inflammation; while passive plethora, combined with irritation of nerves, constitutes passive inflammation.

Under congestion of arteries and of their extremities, there usually is no increase of heat; but, on the contrary, under

the passive form of it, the temperature is reduced. Under such a state, the sensibility of the part is diminished; but if the congestion leads to a distended state of the vessels, an unusual degree of pressure will be made on the nerves of the part, which may simply give rise to uneasy sensations; but should such increased compression give rise, in any degree, to that state of nerves which is expressed by the term *irritation*, a state will be present, bordering upon that to which the term inflammation is applied.

But irritation of nerves, although it may arise from a plethoric state of blood-vessels, may also exist in the absence of such a state of those vessels. Such a state of nerves may exist locally, or there may be irritation throughout the nervous system generally.

Irritation of the nerves of a part, is very apt to cause an increased quantity of blood to be contained in the arteries and capillaries of that part.

So that, as plethora may induce irritation, so may irritation induce plethora.

The fact being established, that irritation of the nerves of a part may cause an increased quantity of blood to be contained in the arteries and capillaries of such part, we are naturally led to inquire in what way such a cause can produce such an effect. From what has been already stated, it appears that any cause which produces this effect, can only do so, either by increasing the momentum of the blood, or by causing an enlargement of the capacity of the arteries in question. But local irritation of nerves can increase the momentum of the blood, only by causing increased action of the heart; an effect which it fails to do, in many cases, where it is followed by an increase of the quantity of blood that is contained in the arteries, which are in the immediate neighbourhood of those nerves. In such cases, then, local irritation can produce the effect in question, only by causing an increase of the capacity of those arteries.

Now, if we found that irritation produced a turgid state of the less minute arterial branches, while it caused an opposite condition of the capillaries annexed to those vessels, we should infer that the irritation caused increased action of the contractile power of those capillaries, and that the turgid state of the less minute arterial branches was the consequence of such increased action.

But if we found that irritation produced a turgid state of the capillaries also, we should next inquire whether this effect was immediate or indirect. In the former case, such an effect could arise only from direct diminution of contraction in the vessels; whereas, in the latter case, the diminution

of contraction might be the result of previous increased contraction. In the former case, we should infer that irritation directly produces diminished exertion of the contractile power of arteries; whereas, in the latter case, our inference would be, that irritation produces, in the first instance, increased contraction of the smaller arterial extremities, which increased action, after having existed a certain time, is succeeded by an opposite state, in which a feeble degree of opposition is maintained by those vessels to the momentum of the blood.

It seems difficult to suppose, that irritation can directly produce diminished contraction of the capillaries; our opinions naturally lean to the opposite conclusion. If we can ascertain as fact, that the application of *stimulants* directly produces increased contraction of the capillaries, since such application causes that state of nerves which is implied by the term irritated, we should naturally conclude, that the immediate effect of irritation of nerves must be increased contraction of the capillaries. If this conclusion were admitted, we should also conclude, that, when a turgid state of the capillaries is an effect of local irritation which does not increase the momentum of the blood, such a state must be, not the direct, but the indirect effect of such a state of nerves.

But, whatever may be the conclusions which are drawn, as to the precise nature of the primary effects of irritation of nerves upon arteries and their minute extremities, the following conclusions seem warranted by the statements which have been made in the preceding pages:—

The state to which the term inflammation is applied is one in which there are present, increased sensibility, painful sensations, increased redness, increased heat.

The increased redness in such a state, is a consequence of a greater quantity of blood being contained in the blood-vessels of the part affected.

The presence of an increased quantity of blood in the blood-vessels of a part, does not alone constitute the state to which the term inflammation is applied, nor does it necessarily give rise to such a state.

The presence of increased sensibility in a part does not alone constitute inflammation, nor does it necessarily give rise to it.

An increase of temperature in a part does not alone constitute inflammation, nor does it necessarily give rise to it.

The presence of painful sensations referred to a part, does not alone constitute inflammation of that part, nor does it necessarily give rise to it.

Consequently, no one of those conditions, (to which, when

they are all present, the term inflammation is applied,) in itself constitutes inflammation.

As increased redness arises from the presence of an increased quantity of blood in blood-vessels, so these two conditions constitute, in fact, but one condition.

Increased sensibility and painful sensations are conditions immediately dependent upon the state of the nervous system.

An increase of temperature may be the consequence of an increase of the quantity of blood that flows through blood-vessels, or it may arise from an altered state of nerves, under which there exists increased sensibility.

The several conditions which constitute inflammation may, then, be reduced to altered conditions of the blood-vessels, and altered conditions of the nervous system.

But altered conditions of the blood-vessels alone do not constitute inflammation, nor do altered conditions of the nervous system alone constitute that state.

Inflammation, then, implies a state in which there is an altered condition of the blood-vessels, existing in combination with an altered condition of a part of the nervous system. Q. E. D.

II.

Obstetrical Researches. By Maurice Onslow, M.D.

No. 6.

I have already stated, O. R. No. 4., that Dr. John Maubray was the first professed lecturer on midwifery in England, but his lectures were of short duration. His introductory lecture was read in 1725; and his death happened on the 27th of October, 1732.

The next regular teacher of midwifery was Edmund Chapman, Surgeon. He had long practised midwifery at Ipswich; came to London about the year 1731; and soon began to give lectures.

In 1733, he published his "Essay on the Improvement of Midwifery, chiefly with regard to the operation. To which are added, fifty cases selected from upwards of twenty-five years' practice." In this essay he speaks of the forceps as the secret of Dr. Chamberlen; and, he adds, "now well known by all the principal men of the Profession, both in town and country." This appears to be the first time that the forceps was publicly spoken of as an instrument of midwifery.

In 1735, he published an enlarged edition of his pamphlet, omitting some, and inserting other and more numerous

cases; and having been censured by some critics for not describing the forceps more accurately, he in this edition gave an engraving of those that he was in the habit of employing.

Besides the forceps, Chapman was in the habit of using a fillet, for the purpose of accelerating delivery, and pretended that this fillet was of a peculiar and superior construction; but this contrivance, whatever it was, he, with a very reprehensible illiberality, keeps a secret, and was, in consequence, sharply and deservedly lashed by John Douglas, Surgeon, in his "State of Midwifery in London, 1736."

In the third Number of these Researches, I published a case from Dionis, which went to prove that children were sometimes delivered alive by the crotchet, used as a lever, and gave a delineation of the *crotchet mousse* of Mauriceau and Guillemeau, to show its great resemblance to the modern lever. In the first edition of Chapman's book, but omitted in the second, a case, the forty-third, is inserted, which rather confirms the opinion, that the *crotchet mousse* was in the habit of being used as a lever. His words are these: "I once, forgetting to take my forceps with me, was with a woman, where the head of the child had for some time lain low in the vagina, being expected at every pain. Here I used the blunt hook, bearing it sideways, by way of a *lever* under the os pubis, which answered one part of the forceps. By this means the child was safely extracted, but had a small superficial hurt on the scalp which was soon cured." Chapman adds, "I cannot much recommend this method of extraction, because it generally wounds the infant, and *causes a contusion in the mother.*"

What Chapman's blunt hook really was, I am not able to discover, unless it were the old *crotchet mousse.* It certainly was *not* the instrument now known by the name of the blunt hook, which is of much later date, being, I believe, the invention of Smellie.

Chapman appears to have been too much in the habit of using instruments, trusting much less to nature than was desirable; and his pupils imbibed from him the practice of having recourse to artificial assistance on all occasions. One of them, Mr. Page, of Lutterworth, boasts of being called in to cases attended by midwives, *twice or thrice* a week, when he generally, if not always, had recourse to instruments. Even when the os uteri was *attending,* he did not hesitate to use the forceps, and says he does not wonder "that Dr. Chamberlen became so eminent in midwifery, when he had so useful and so safe an instrument to practise with."

However useful and safe such an instrument might appear to Mr. Page, it is impossible to doubt, when it was used by one Practitioner *twice or thrice a week*, and sometimes when the os uteri *was attending*, or, in other words, before this part was well dilated, that it must have been often productive of mischief; and it was, in all probability, from the prevailing conviction of the hazardous consequences of employing the forceps, grounded upon much actual and known mischief, resulting from the improper use of them, that occasioned their general disuse, into which, as we learn from Harvie, who lectured in 1765, they fell after the death of Chapman.

Chapman's lectures on midwifery, like those of his predecessor, Maubray, were of short duration. He died at his house in Orange Street, Red Lion Square, November 22, 1738, having practised in the country about twenty-three years, and in London about seven. He was esteemed a candid, ingenuous, and expert Practitioner.

The cases published by Chapman, are, like most others, of various merit. From some of them much information may be obtained. Cases very often contain casual hints and facts, which may be applied to various useful purposes, and sometimes afford opportunities of illustrating subjects not otherwise easily elucidated. A fact is mentioned by Chapman, respecting the thinness of the uterus at the period of parturition, which may, for instance, throw light upon a case of Cæsarean operation, which has been much commented upon, and still remains in some obscurity.

In the year 1798, Mr. James Barlow, Surgeon, of Blackburn, in Lancashire, published in the "Medical Records and Researches," a case of Cæsarean operation, from which the mother recovered—the only instance of the kind in England. Great doubts have been entertained, whether, in this case, he did, in fact, make an incision through the parietes of the uterus and *into* its cavity; and the reason for doubting, is, that he describes the uterus to have been so thin, as scarcely to exceed the thickness of the peritonæum; which was, by many who read the case, considered impossible, the usual thickness of the uterine parietes being much greater. But if it had been recollected that Chapman describes a similarly thin uterus, this objection to the accuracy of Mr. Barlow's statement would have been of little value. Chapman's forty-first case gives an account of a woman who died undelivered, and whose body he opened after death. In this instance, the thickness of the uterus was half an inch. The subject of the forty-second case was likewise opened; and he says, "in this subject it was not more, *if so much*, as half so thick as the former." Now, if a uterus, after the

liquor amnii has been discharged for many hours, is found not a quarter of an inch thick, it is not very extraordinary, that Mr. Barlow should find it, before the membranes were ruptured, scarcely exceeding the thickness of the peritonæum.

Being upon this subject, it may not be amiss to remark, that Smellie, collection 3, states having opened two women in 1747, who died of floodings: "The membranes were still unbroke, and both uteri kept at their full extent by a large quantity of water. When I opened them, with intent, if possible, to save the children, I found each about a quarter of an inch thick." Smellie goes on to say, "I have assisted in opening several women who died after delivery, in consequence of excessive weakness, and violent floodings. When the uterus was not much contracted, it was not much thicker than that I have described; but in those who died a few days after delivery, from obstructions of the lochia, and a fever, the uterus was contracted to a small size, and generally from one to two inches thick. I must, however, except one case of a woman in 1752, who seemed to have been seven or eight months gone with child, yet the uterus was contracted to a small bulk, though, when stretched, *it did not exceed the eighth or tenth part of an inch in thickness, at the fundus.*

III.

Description of an Instrument for counteracting Morbid Contractions of the Flexor Muscles of the Leg. By W. Gaitskell, Rotherhithe.

I have transmitted the sketch of an instrument found highly useful in counteracting morbid contractions of the flexor muscles of the leg, the sequel of chronic inflammation of the knee-joint and its appendages.

The outline was copied from an instrument in possession of one of my apprentices, who was lame, and recovered the full use of his leg by the aid of it, after wearing a high-heeled shoe for four years. It was recommended to him by an empirick, who received twenty guineas for the cure, and completed it in twelve months.

I have tried this instrument, and found it answer my expectation. The following is a narrative of one of the cases:—

A delicate boy, about six years of age, was attacked with a scrofulous inflammation of the left knee-joint, which terminated in suppuration, with symptoms of hectic fever. He was so emaciated, as to appear a perfect skeleton. In this

state, being a patient in one of the hospitals, amputation was proposed; but, his mother refusing her consent, he was brought home, and placed under my care, without the smallest hope of recovery.

After twelve months severe suffering from several abscesses, discharging at numerous apertures, he finally recovered, but with such a contraction of the flexor muscles of the leg, as to draw it considerably backward. When standing erect, the foot rested on his toe. The medical treatment consisted of hemlock fomentations, linseed-meal poultices, bark, and soda, with pure air, and nutritious diet.

Should the instrument prove as useful to others, as those I have advised to make trial of it, I shall feel thankful to the inventor, and happy in making it known to the public.

Explanation of the Plate.

A. A steel bow, with a joint in the centre, C, which advances to, or recedes from the steel bow, B, by a small screw, C, aided by a female nut. The male screw is pinned into the joint, and works through a perforation in the bow, B, which the nut regulates.

B. A steel bow, without a joint, fixed on the projection of steel, D, at the lower end of A, and grooved above, to move on a similar projection at the upper end, D.

D. Two projections of iron.

E. A concave thin plate of elastic iron, lined on the concave side by thin leather, stuffed with wool, and on the convex with dog-skin, and rivetted firmly to A.

F. A similar plate with letter E, and made of the same materials. E. embraces the calf of the leg, and F. the ham-strings, which become two fixed points, and are separated or brought nearer, in proportion as A is straightened or curved.

G. A broad thin iron plate, elastic, and lined inside and out with leather, fixed into A, the joint C being its centre. This goes to the posterior side of the joint, and is hollow behind the ham-strings, while the broad leather, H. comes over the patella and sides of the knee, with three straps perforated to buckle on G.

H. The broad flap.

I I I. The straps.

One hole of the strap is to be taken up every third day, which extends the joint gradually. It is only to be worn in the day-time. At night, the space between the calf of the leg and the back part of the thigh, is to be filled with a convex

piece of wood, or cork, adapted to the parts, and confined on with some yards of tape, or bandage, to preserve the extension which the instrument may have gained in the day-time.

IV.

An Essay on the Causes of Death in Confluent Small-Pox; with Practical Reflections on the Treatment of that Disease. By George Gregory, M.D., Senior Physician of the St. George's and St. James's General Dispensary.

(*Continued from the last Number.*)

Much benefit may be expected to accrue from the study of the different modes in which death is brought about in acute and chronic disease. The subject is obscure and difficult, and, on that account, perhaps, has been but little pursued; yet there is reason to believe, that it is, to a great degree, within our reach. In the last Number of the Repository, I directed the attention of its readers to the most usual manner in which death takes place in confluent small-pox; and from its being peculiar, or nearly so, to that disease, I called it the *specific mode of death*. I have now to continue the subject, by observing, that small-pox occasionally proves fatal in other ways. With the view of coming to a right understanding on this point, it is necessary to look, in the first place, to the *period* at which small-pox proves fatal. When the disease is confluent, and death occurs between the ninth and thirteenth days, (counting from the first appearance of eruption,) it is nearly always by the *specific mode*, formerly pointed out. But small-pox may terminate fatally before the ninth day, or after the thirteenth; and then it is in some one of the ways which I am now to describe. These we may call the *accidental* causes of death in small-pox, and the study of them is, in no respect, less important than that of the specific. In one sense, they may even be considered as of superior interest, inasmuch as they are applicable to a greater variety of cases, and are infinitely more under our control. The *specific* mode of death, as I have termed it, is peculiar to the confluent forms of the disease; but the distinct small-pox sometimes proves fatal, and so does small-pox after vaccination in a few cases, and then it is always in one or other of those ways of which I am now to treat. It is satisfactory to the friends of a patient to know, that death was occasioned by a combination of circumstances, over which the Practitioner had scarcely any control; but it is, at the same time, highly necessary for the medical attendant to feel, that such a con-

solation does not avail him in *all* cases of death from small-pox; that this disease, like every other, requires constant watching, and occasionally calls forth the exercise of pathological and practical skill; and that cases have occurred, (and are still occurring) where the death of the patient was attributable, in no inconsiderable degree, to the *inattention* or *ignorance* of the Practitioner.

The accidental causes of death in small-pox appear to be the same with those which occur in cases of common continued fever; and the substance of what I have to state on this head is, doubtless, applicable, in a great degree, to the pathology of fever in general; but as I am not prepared to say there may not be some peculiarities, I would wish to confine my remarks altogether to the case of small-pox.

The first of the accidental modes of death in small-pox which I shall notice, occurs in cases where the inflammatory fever runs very high, by determination of blood to the head, marked by the occurrence of genuine phrenitic symptoms, or sometimes by those of apoplexy. I have seen this take place at different periods of the disease — early and late. It will be most likely to occur in adults, particularly in such as are of robust and plethoric habit, who have lived freely previous to the invasion of the disease, or who have been confined during its early stage to a small and heated room. The only case of small-pox subsequent to vaccination, which I have seen to prove fatal, terminated in this manner. To this head we may refer the peculiar phenomenon, occasionally noticed in children, of death from small-pox, *during the eruptive stage, by convulsions.* These have been imagined by some pathologists, and probably with reason, to be the first effect of the poison of small-pox upon the brain. The *secondary* fever is frequently accompanied with strong marks of determination of blood to the head. I have several times had occasion to observe the little effect which bleeding produces in this state of the system. The symptoms are relieved perhaps for a time, but they quickly return, proving at once some peculiarity in the *nature* of the secondary fever of small-pox, and the hopelessness of subduing it by the common antiphlogistic means.

2. The second of the accidental causes of death in small-pox, is the occurrence of common thoracic inflammation in some one of its forms, either pleurisy, peripneumony, or bronchitis. It is most usual for this to take place after the thirteenth day. I have seen it occur as late as the twenty-fifth. Of this disposition to thoracic inflammation in the latter stages of confluent small-pox, Sydenham was well

aware; and it seems to have been his chief reason for directing a bleeding so very generally, about the twenty-first day. It often comes on very insidiously. In one case which fell under my own observation, the affection was hardly noticed until symptoms of effusion had unequivocally manifested themselves; and here, upon dissection, the left cavity of the thorax was found completely gorged with purulent matter. But though pneumonia chiefly occurs in the *latter* stages of the disease, yet it is sometimes met with at an earlier period; and it is therefore necessary to distinguish between the *specific* bronchial inflammation formerly alluded to, and that *common* inflammation, of which I am now treating. In the former case, the uneasiness about the throat, the cough, hoarseness, and other thoracic symptoms, occur from the very first, and increase with the progress of the eruption. In the latter case, the cough and dyspnœa come on suddenly, and the patient is often himself sensible that they are attributable to having taken cold, by sitting near an open window, or other similar exposure to the air.

3. The general character of the fever accompanying small-pox is unquestionably *inflammatory*, and therefore it is that, in a large proportion of cases of death from small-pox, the fatal event is owing to some effect of general or local inflammation. But, though this holds good as a general rule, it yet, like every other principle of pathology, admits of exceptions. It remains, therefore, to be stated, that small-pox sometimes proves fatal by *exhaustion*; the character of the accompanying fever being *typhoid*. This will sometimes happen in individual instances, while the epidemic preserves its usual inflammatory character; but more commonly many instances of the kind will be found to occur together, authorizing us, therefore, in saying, that there is something peculiar in the *character of the epidemic*. I am ready to admit, that such a thing has not occurred within my own observation for many years, — and it may perhaps be long before it does so occur; but I am not, on that account, to call the principle in question, or to disregard the recorded observations of former authors, or the obvious suggestions to which they lead. It is, I think, impossible to read with attention the remarks of Sydenham on the characters of the different epidemics which he witnessed, without feeling sensible that there is a *decided* foundation in nature for the principle which he inculcates; and I fear that if "*modern medicine*" can boast no greater improvement than that of daily refuting the idea that there is such a thing as "*the character of an epidemic, over which the Practitioner has no control,*" it has profited but sparingly of the advantages

which it enjoys. Allowing that the character of an epidemic mainly depends on "the seat and degree of the attendant irritation or inflammation," I am yet at a loss to understand how this can be said to be *under the control* of the Practitioner*. He may, indeed, arrest the leading symptoms, and thus lessen the ravages of the disease, *in individual cases*; but the character of the *epidemic*, that is to say, the disposition to certain attendant inflammations and irritations, still exists, and can no more be changed by him, than he can change the small-pox into measles.

In some epidemics it has been observed, that the coming out of the variolous eruption is attended with a weak and small pulse; that petechiæ are mixed with it; and that the whole character of the accompanying fever is *typhoid*, and not inflammatory. Some of these cases end fatally in a few days by collapse; others linger through the disease, and ultimately die of gangrene of the extremities. I am informed by Dr. Ashburner, that many instances of this malignant kind of small-pox, proving fatal in the manner I have described, have occurred to him in the course of his attendance at the Small-Pox Hospital; but, as I have not had an opportunity of seeing them myself, since my attention has been particularly drawn to the subject, I am unwilling to occupy the pages of the Journal by further allusion to them. The time may come, perhaps, when I shall be able to speak of them with that confidence which personal observation gives.

4. It has been stated, by a late writer†, that small-pox occasionally attacks the abdominal viscera. He informs us, that, in 1818, at the Maison des Enfans Malades, in Paris, the dissection of variolous patients showed inflammation and ulceration of the internal coat of the intestines, and *pustular eruptions* there, or on the surface of the peritonæum.

It would, of course, be unwarrantable to call in question *altogether* the accuracy of these statements; but I may be permitted to express my strong suspicion, that Dr. Clark was deceived when he spoke of *pustular* eruptions having been observed on the mucous membrane of the intestines. I have never seen an approach either to *vesicle*, or even to the state of common inflammation there, though I have carefully looked for it for many years; but I think it *possible*, that a vesicular or aphthous state of that membrane may have been seen, because, in one case which terminated fatally at the Small-pox Hospital, last year, I noticed a remarkable

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* Vide Medical Intelligencer, vol. i. p. 287.

† Dr. Clark.—Medical Notes on Climate, &c., page 150.

appearance of this kind along the whole tract of the *œsophagus*. Dr. Baillie, we know, distrusts the accounts which have been published of small-pox pustules in the stomach and intestines; and as Dr. Clark did not see them himself, I am still very sceptical on the subject. Few things, I am sure, are more worthy of remark in the pathology of small-pox, than the rarity of abdominal symptoms, at all periods of the disease.

If these positions are correctly laid down, the *principles* of treatment in confluent small-pox will be abundantly obvious, however difficult it may be found in practice to adapt them to the different circumstances under which the disease occurs. Much has been lately said regarding the efficacy of *blood-letting* in small-pox. We are informed by Mr. Alcock, that, in his practice, it has served, in conjunction with other parts of "a decidedly depletory and antiphlogistic system of practice," to prevent confluence, to cut short the disease, to cause the eruption to pass through its course more rapidly than under ordinary circumstances, to prevent secondary fever and pitting,—in short, "to conquer the disease." I regret to say, that my own practice has not yet furnished me with one instance that has realized the flattering hopes thus held out by Mr. Alcock. At the Small-Pox Hospital, I have lately seen many instances of persons who were bled, and that largely, by different Practitioners, during the first fever, while ignorant of its nature; but in no one case has it appeared to me to lessen the *quantity* of the eruption. I have frequently bled patients in the course of the maturative fever, in the hopes of lessening the inflammatory condition of the fauces; but it is only in a few instances I can flatter myself that I succeeded in any sensible degree. I do not say it is equally hopeless to attempt to moderate the inflammation of the skin by similar means, and thus to lessen secondary fever, and prevent pitting. I believe that bleeding to a moderate extent, and *at well chosen periods*, may be advantageously had recourse to for these purposes; but I am sure, that in very many instances, it will, even in this view, disappoint our expectations. At the very moment I am writing, there is a case in the Small-Pox Hospital, which strikingly illustrates this position. The patient has a most copious and closely confluent eruption on the face. The face is very hot; and though the eruption appeared but yesterday, it is now attended with a high state of erythematous redness. Yet the pulse is only 72, perfectly soft, and quiet; the rest of the body is cool; and the man is sitting up, having as yet few, or no constitutional symptoms. The local application of cold is indicated in these circumstances;

but experience has taught me, that but little benefit can be expected from it. It is a useful piece of practice in some cases, as where the pustules are not set so close as to be actually *confluent* before the fourth or fifth day. Where they are confluent as early as the second day, no reasonable expectation can be formed either from venesection, or any other *depletory practice,* of "conquering the disease."

I have never found advantage from venesection in small-pox except under the following circumstances: — 1. At any period of the disease, from the first attack of rigors, to the termination of the secondary fever, when the symptoms of fever run so high as to bring on severe headach, delirium, coma, or other unequivocal symptoms of determination to the head. 2. At any period of the disease, when symptoms of common pneumonia supervene. 3. *Occasionally,* at an early period of the disease, when the pulse is frequent, and full, and a strong determination is taking place to the skin, marked by the occurrence of erythematous redness, and *tenderness of the skin.* 4. At a later period of the disease, when the same tendency is manifested by the constant succession of boils. This state of system, however, is for the most part better combated by daily purging.

From what I stated in the preceding Number, it is clear that the great object is to moderate the *quantity* of eruption. Could we succeed, with any degree of certainty, in this, small-pox would be disarmed of almost all its terrors. The only means, however, which are known to me, by which this can be effected, is the free exposure of the body to cold air during the first two days of fever. Unfortunately, this is too often neglected, partly from the ignorance of the practitioner as to the nature of the disease; and partly, where the disease is ascertained, from the absurd prejudices of the friends, or the languor and listlessness of the patient himself. To one or other of these causes I have been able to trace almost every case of confluent small-pox which has been admitted into the hospital during the last three months, in as far at least as *confluence* is attributable to external heat. I have generally ascertained, that the patient was confined to bed during that critical period, loaded with bed-clothes, drenched with warm gruel, or dosed with diaphoretics. The consequence was a load of confluent eruption, in the progress of which the powers of the system gave way. I feel it in some measure incumbent upon me, witnessing as I do the increasing prevalence of the disease, and the baneful effects of this sort of treatment during its early stage, to direct the attention of the Practitioners of the metropolis to this subject, and to remind them, that the life of the

small-pox patient is, in a great degree, in the hands of him who witnesses the first effects of the poison.

The eruption being once completed, and proving confluent, the medical attendant can do little more than watch the progress of the disease, checking any local determinations that may arise during its progress; and if the patient has the good fortune to survive the fourteenth day, to support the powers of the system by a well regulated diet. The judicious employment of purgatives, through the whole course of the disease, of opiates after the ninth day, of the warm bath when the process of scabbing is nearly complete, and of wine and cordials in those particular cases where the arterial system is weak, constitute the rest of the treatment; but these points are too generally known to require a detailed notice: and further, there is nothing that I know of very peculiar in the adaptation of such means to the case of fever, as it occurs complicated with confluent variolous eruption.

It is hardly necessary for me to say, that the degree of caution with which a case of small-pox is to be watched, must be proportioned to the *quantity of eruption.* There occur occasionally very slight cases of distinct small-pox, which hardly require even the aid of a common purgative; but it will never be forgotten by the experienced Practitioner, that in every case of natural small-pox, however distinct, and of small-pox after vaccination, however modified, determinations of blood may take place, which require active treatment; and though he may safely disregard the eruption, he will yet acknowledge that the presence of fever in the system is never to be overlooked.

V.

A Case of Empyema, whereby the entire Lungs of the Left Side were destroyed, attended with Inflammation of the Heart, and Suppuration of the Pericardium. By Henry Robertson, M.D.E., Member of the Ionian Academy, and of the Literary Society of Athens, &c.

The following case is transmitted for the Medical Repository, as being of much practical interest, on contrasting the symptoms of the disease with the appearances on dissection. The patient, a young lady in her tenth year, well formed, and of a healthy family; and the disease, which terminated her existence, was supposed to originate from having been exposed to damp, and got wet in her feet about the beginning of January last, and when a mild attack of hooping cough, with which she had been affected, had just terminated. Upon

this she was affected with cough, and occasionally hooped *, "which induced the mother to recommence the cough mixture, which had been discontinued. On Saturday night (the 13th January), which was exactly a week after the child got wet in her feet, she was seized with extreme shortness of breath,—considerable pain in her chest,—a violent headach, and a great deal of fever. To subdue these symptoms, James's powders and calomel were given, which the patient could not swallow in consequence of feeling exceedingly sick. After vomiting several mouthsful of thick phlegm, she felt relieved in every respect, and soon after had two motions. About eight o'clock on Sunday morning, a degree of sickness returned, which, being assisted by 20 grains of ipecacuanha, brought away a great quantity of thick phlegm and foulness from the stomach. The whole of the remainder of the day the patient was better in appearance, complained very little, and ate as usual. In the evening James's powder was given, with calomel, which was worked off in the morning with strong purgative medicines. The whole of next day, the patient did not appear otherwise unwell, than occasionally complaining of a slight pain under the arm, which was instantaneously relieved by friction with the hand alone, or with opodeldoc. On going to bed nothing more than the cough mixture was given. The patient passed a tolerably good night; and throughout Tuesday, was so remarkably well, that it was supposed the complaint had abated. In the evening she began to complain of thirst, and was very restless. Towards midnight the pain in her left side returned, and continued with great violence. Early on Wednesday the medical attendant was called in, who ordered a blister to be put upon the left side, below the short ribs, and rather in front; he also gave James's powders and calomel, which was worked off with castor oil, with directions to repeat the powders every four or five hours. When first the medical attendant was called in, he found the pulse so quick he could not count them. The following two or three days the patient improved so rapidly, that the medical attendant deemed it unnecessary to call so often, and permitted her to ride out occasionally." N.B. "The pulse was never below 120 after the 21st of January." In this way the patient seems to have continued for a week or two, till the attention of the family was excited by perceiving she inclined to her right side. On examination, a considerable incurvation of the spine was discovered, towards the left side, corresponding to the lower

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* The whole marked (") is the father's communication to me since the child's death. H. R.

vertebræ of the back, attended with a remarkable tumefaction of the right hypochondrium, and considerable pain in the iliac region of the same side: with these symptoms there was also a troublesome pain in the left shoulder, quickness of breathing, and slight cough, her pulse very rapid; but although she felt no pain in her left side, she could not recline on that side at this period of the disease. These symptoms, as it was afterwards explained to me, being looked upon "as a considerable enlargement of the liver," the usual remedies in such affections were adopted; by the use of which I was assured the symptoms had been greatly mitigated.

I was called in on the 16th February 1821; she was then labouring under a great degree of short, quick breathing, with a very slight cough, excreting a clear mucus, without any pain of chest; and it was not till a week after I was informed she had ever complained of her left side; her pulse varied from 140 to 148, it was distinct, soft, rather small; she had no tendency to syncope in any position; and these symptoms were not marked by paroxysms. Skin natural, no thirst, her tongue not loaded, her bowels free; she was at all times distinct, but sometimes awoke from her short slumbers in anxiety. She complained to me of a pain of her shoulder, referring rather to the lower vertebræ of the neck; and she pointed to me an acutely painful sensation in the iliac region of the right side. Her spine had recovered its natural position, but there was a considerable fulness along the margin of the false ribs of the right side, but not painful on pressure. She had been bled at the arm the preceding day, and had a blister applied to the pained part of the iliac region. She was also taking considerable doses of James's powder and calomel at intervals of four hours.

It was evident that the affection of the liver was not the source of all the symptoms of this case; and finding the patient could make two and even three inspirations, without exciting cough or pain in the chest, I entertained the hope that the great disturbance of the system might be in a great measure owing to the antimonial and mercurial medicines she had taken; as in many other cases I have met with, where these medicines have been repeatedly administered in febrile and inflammatory affections. This opinion seemed to me probable, as her gums appeared red, though I could not perceive any fœtor of her breath, or tendency to ptyalism. I recommended these remedies to be discontinued, that she should take frequent saline draughts, to have four leeches plied to her feet, and the occasional administration of clysters. This plan had so far a beneficial effect, that her nights were better, her appetite improving, she became cheerful, and could

admit of being amused; her pulse was then from 124 to 128; still, however, the pain in her right iliac region was unabated, to which she had on the 19th four leeches applied, which operated well, and from this period till the approach of her dissolution, all pain entirely ceased, her nights were comfortable, and her appetite good; yet the frequency of the pulse was unabated; neither was there any improvement in the state of her respiration, though she seemed to sleep more calmly, and with deeper inspirations. The same plan was persisted in till the 21st, and being still in doubt as to the true nature of her disease, and the advantages that had been gained by the mercurial treatment being strongly urged to me, I prescribed a pill to be taken night and morning, consisting of five grains of blue pill mass, and a quarter of a grain of calomel, to be taken night and morning. The patient continued much the same till the 22d, still the excessively quick pulse and breathing continued. The room in which she lay was in all respects confined, it was also warmed by a small German stove, and I think that from this cause, a good deal of irritation might be occasionally produced.

After the most careful examination of this young lady, both in the erect and recumbent posture, I was unable to discover any thing to lead me to a decided opinion of her disease; the want of information of her case, was from the absence of her father at the commencement of her recent illness, and the confinement of her mother on the day previous to my first visit. Therefore, admitting that her disease was originally an hepatic affection, that was evidently nearly conquered before I was called in. The absence of all pain of her chest, the very trifling degree of cough, and having seen the patient asleep on the right as well as on the left side, and with her head almost on a level with her body, and having been assured by her father, and the gentleman in ordinary attendance, of the curvature of the spine, as well as of the remarkable tumefaction of the hepatic region; I therefore began to suspect there might have been a suppuration in the liver, or among the psoas muscles; and that the celerity of the pulse, and breathing, might be owing to the patient's debility, and the effusion of matter. The patient being much the same on the 23d, and having then perceived, for the first time, the florid appearance of the cheeks, peculiar to hectic patients, though it did not mark any exacerbation of symptoms, or was ushered in by cold shivering; it was agreed upon to try the effect of digitalis. She accordingly took two minute doses of the tincture at a long interval.

Towards nine in the evening, she evidently became worse, coughed much, was sick, and referred to a severe pain in the

back part of the neck and shoulders; complained of coldness of her hands; at which time, no pulsation was felt at the wrist. On the notion that the sickness and pain she complained of were owing to the state of her stomach, some warm water, and afterwards fifteen grains of ipecacuanha were administered, while I was sent for, which operated, but without affording permanent relief; and in the space of two hours after, she had breathed her last.

On proceeding to the opening of the body, no preternatural fulness, protuberance, or distortion of any kind was perceived; but as the Surgeon was severing the cartilages of the ribs, that were attached to the sternum, a gush of matter followed the incision, the pericardium having been ruptured by the scalpel. The sac had been greatly distended with matter, whereby it had stretched considerably to the right side. The heart was inflamed, and seemed to me rather smaller than is usual at that age. On further examination, we found the entire cavity of the left side of the chest filled with matter, perfectly inodorous, of the consistence and appearance of cream, and, by computation, in quantity at least six pints. There was not the smallest vestige of lungs, of air-tubes, or blood-vessels remaining. The pus was free of tinge of any kind. The branch of the asperia arteria was obliterated, as it entered the corresponding lung; by this we understood why no pus was spit up at any period of the disease. The liver was somewhat larger than usual, and, to me, bore unequivocal marks of having been in a state of inflammation. Every other organ was found in a healthy state. The lungs of the right side were perfectly sound; which, with other circumstances, leads me to suppose that the disease of the left side of the chest had commenced, and made great progress, at a period anterior to the present illness. I have since learnt that this young lady had a slight attack of a similar description about twenty months before. I am inclined to think that the disease of the heart was the most recent affection, and was probably brought on by the hooping cough, and subsequent cold. The quickness of respiration was probably greatly affected by the pressure of the distended pericardium upon the lungs of the right side; and this was probably the immediate cause of death. There are cases on record, of people having lived in tolerable health under the most serious injury to one side of the lungs; and I am disposed to think such has been the case in the present instance. To within a fortnight of her decease, she was accustomed to ride out, and even bore the jolting of a carriage over a rough road without complaining.

There is a practical inference to be drawn from this case, of much importance; and which strongly supports what I have said on the impropriety of giving emetics for the cure of hooping cough, as it shows the mistaken notion of the utility of such medicines in evacuating or clearing the lungs; for were such the power of an emetic, it was natural to suppose, that in this case it should have caused a rupture of the empyema; I therefore regard the administration of the emetic, in this case, as an experiment, which, in its results, confirms the opinion I have stated on this point in my remarks on pertussis.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Fauna, Flora, and Pomona, kept at Hartfield, near Tunbridge Wells. By Dr. T. Forster. *From the 1st to the 30th of June,* 1821.

June 1st.—The first warm summer's day we have had since April. *Iris Pseudacorus* appeared in flower. We discovered this evening all the Bees lying dead under the hives in a large heap. Bees have failed very extensively this season. The Thermometer to-day rose to seventy-two degrees.

3d.—The *Hemerocallis flava* flowered to-day in the garden. The Mouse-eared Scorpion Grass is now every where in flower. *Iris Germanica* common in the gardens.

4th.—I noticed *Papaver orientale* in blow to-day by the mill-dam, at Cowden. *Centaurea Cyanus* is in flower in the cottage gardens.

6th.—I obtained to-day a dead specimen of the Spoon-bill (*Platalea leucorodia*) which I dissected. The trachea was convoluted within the cavity of the thorax like the bend of a trumpet. I have been engaged of late in making dissections of the various mammalia and birds of this island; and shall be obliged by the contributions of persons, in whose possession any rare birds or animals may die and become useless. It is my intention to publish the result of my researches in this interesting branch of natural history.

7th.—*Peonia corallina* just in flower at Hartwell. *P. tenuifolia* already quite faded. Passing through Surrey into Hampshire, I noticed *Papaver Argemone* in flower in several places. The weather cold and cloudy.

10th.—*Papaver Rhæas* in flower near to Basingstoke.

P. dubium in flower on the walls behind that town and elsewhere.

11th. — *Cistus Helianthemum* plentifully in blow in all the lanes about Odiham and Upton Gray.

12th. — *Apargia hispida*, *A. hirta*, and *Hieracium Pilosella*, abundantly in flower.

13th. — *Echium vulgare* in flower; some of the specimens growing six or seven feet high.

15th.—Returning from West Green, I found an unknown *Senecio* near the village of Gruel. I plucked up the only specimen I could discover; and I suppose it must have been accidentally introduced by seed.

Papaver Rhœas flowered to-day at Hartwell.

19th. — A clear morning at last, but with a very unwholesome cold east wind. The very general prevalence of headach is a remarkable circumstance, and must be attributed to the unseasonable weather.

20th. — The cloudy weather returned, and very cold. *Orchis Morio* and *O. mascula* abundant in the wet pastures and swamps. *O. bifolia* in the groves and moist woods.

21st. — I noticed, in my ride to-day, that Red Poppies began to be common in the corn fields. The varieties of *Dianthus barbatus* called Sweet Williams, are beginning to be common. This evening was fine, but the air still cool.

22d. — *Gladiolus communis* and *Agrimonia Eupatoria* just coming into flower. The weather remains cold and cloudy, with north and easterly winds. The regularity with which some plants have come into flower at their wonted times, shows how uniformly they are operated on by some periodical influence, independent of warmth. Some plants, however, are much retarded by the very extraordinary and unseasonable cold we have experienced. The thermometer, during the last fortnight, has been about fifty-four degrees at its maximum, and the difference between the temperature of day and evening is very inconsiderable. I observe that the Blue Rockets, and also the Yellow Asphodel *A. luteus* are in blow; the former is very common in the cottage gardens hereabouts.

23d. — Cold cloudy day, and north wind. Thermometer, at mid-day, fifty-four; at eleven P. M., fifty. *Carduus nutans* in flower.

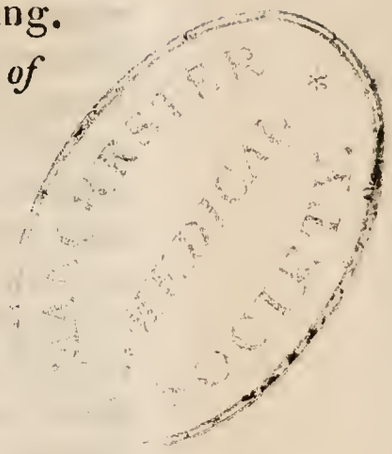
24th. — *Gladiolus communis* and *Campanula Medium* in full blow at Hartwell. A variety of *Carduus Marianus* is also in flower, distinguished by wanting the milky streaks on the leaves.

25th. — *Malva sylvestris* begins to be commonly in flower.

29th. — *Lillium bulbiferum* in blow in many gardens.

30th. — The weather at last warmer, with indications of rain, which fell copiously during the night. *Digitalis purpurea* in flower. *Papaver somniferum* just opening.

[*This Journal is to be continued in the neighbourhood of Tunbridge Wells.*]



PART II.

ANALYTICAL REVIEW.

I.

Practical Observations in Midwifery; with a Selection of Cases. Part I. By John Ramsbotham, M.D., Lecturer on Midwifery at the London Hospital; and one of the Physician-Accoucheurs to the Lying-in Charity for Delivering Poor Married Women at their own Habitations. 8vo. pp. 422. 1821.

Publications in every department of medical science have too often proceeded from the pens of inexperienced Practitioners, who, though they may have possessed extensive theoretical knowledge, have, in truth, obtained very little practical information. Among the writers on obstetrics in particular, there seems to be a numerous race, whose actual experience has been very limited. This is not the case with the Physician whose work on midwifery we are now to review. He has long been established in practice; is a public teacher of the science; and has, for several years, held the office of Physician-Accoucheur to a very extensive lying-in charity. From authors of such a class, we have reason to expect much instruction; and we have turned over the leaves of this book, with strong expectations of adding to our stock of obstetrical knowledge; nor have we been disappointed; for the volume contains a mass of information, derived, as we are told in the preface, not from the writings of others, but from the author's own clinical experience.

The volume commences with some introductory observations on the structure of the uterus, its size, situation, and contents. This is followed by a neat description of natural labour, with remarks on the general management of the placenta, and on the occurrences after delivery. We are next presented with a valuable tract, occupying more than one hundred pages, on adhesion, retention, and disruption of

the placenta; on relaxation of the uterus; and on collapse after delivery. Three varieties of protracted labour are next brought under consideration; and the volume concludes with observations on rupture of the uterus. Ninety cases, illustrative of the subjects treated upon, are interspersed through the volume; and many of these tend to the establishment of very useful and important points of practice.

Our limits will not permit us to advert to all the parts of this volume which we think deserving of attention; but we shall proceed to consider some highly useful particulars.

Dr. Ramsbotham considers the management of the placenta, as a practical subject, which involves matters of far more vital importance to the parturient woman than the simple exclusion of the child. He therefore treats upon this subject under four heads; first, the general management where no difficulties present themselves; secondly, when there is adhesion of the placenta to the uterine parietes; thirdly, when the placenta, not adhering, is retained, by the contraction of the uterus, within its cavity; and, lastly, when any portion of placenta is torn from the general mass, and a part remains within the uterus.

On the section upon the general management of the placenta, we have no observations to offer. That which relates to the unnatural adhesion of the placenta to the uterine parietes after delivery, we shall not pass over without notice. Adhesion, more or less firm, of the whole or part of the placenta to the uterine cavity, is by no means uncommon. Sometimes it admits of easy separation; "at other times, it is so firmly adherent, as almost to feel as if it constituted a part of the uterine structure itself." Dr. R. thinks that this strong agglutination of the placenta to the uterine surface, is the consequence of some previous injury or disease. He details several cases of such adhesion in consequence of blows, pressure, falls, &c.; and supposes that the injury thus imparted was not considerable enough to produce actual separation of the placenta from the uterus, but sufficient to excite the vessels of the uterine structure to an undue degree of action, and to throw out coagulating lymph, by which the placenta and uterine surfaces are morbidly united. The method to be employed for the removal of the placenta, under such circumstances, is the introduction of the hand, which always more safely and more speedily effects this desirable object, than any other means. But Dr. R. cautions against proceeding to this operation, during a state of absolute syncope. He thinks it "desirable to procure a revival from syncope by stimulants, or other means, before the introduction of the hand, else the

patient may not survive the operation; but if the extraction be deferred on this account, the patient must be carefully watched in the interval, lest hæmorrhage be going on internally, or lest it should return; for, under a state of great exhaustion, every ounce of blood becomes a matter of importance to the system."

Our own experience agrees very much with Dr. Ramsbotham's, respecting the application of cold for putting a stop to hæmorrhage. From its injudicious use, we have witnessed many serious inconveniences.

"The indiscriminate application of cold, under great exhaustion and extreme faintness, is very detrimental. The animal body cannot, under such a state of debility, evolve a sufficient quantity of heat to counteract the effects of the continued application of cold. In such instances, the moderate and judicious exhibition of stimulants is not only grateful, but highly beneficial. I allow that the exhibition of stimulants, in this case of uterine hæmorrhage, does not admit of much latitude. When unadvisedly given at the commencement, they are not only unnecessary, but are certainly productive of mischief. When they are prudently exhibited, under a state of exhaustion, they are always advantageous, and even occasionally enable a constitution to rally, when its powers appear to have been reduced to the very lowest ebb."

In these cases, Dr. R. disapproves of "the exhibition of large and repeated doses of opiates;" but thinks much benefit may be derived from "a moderate yet proper degree of grasping compression on the uterine tumour by the hand, thus enclosing it within its powers."

Of retention of the placenta, he describes three states: —

"The first case I notice is 'that in which the placenta is separated from its uterine attachment on the birth of the child, but in which it is retained, or, to speak more properly, in which it is not expelled the cavity of the uterus, for want of active contraction in that organ.'

"The second case is 'that in which the uterine parietes have closed irregularly and longitudinally upon the placenta; so that it is withheld by powerful, but improper contraction.' This is usually called the hour-glass case.

"The third kind, is 'that in which the uterus has too quickly contracted in a globular form upon the placenta, suddenly embracing that mass by an active grasp, before it has had time to escape out of the cavity.'"

On all of which, very judicious comments are offered, and several cases, in support of the doctrine advanced, are inserted.

The chapter on disruption of the placenta, contains a correct description of the usual symptoms consequent on leaving portions of the placental mass attached to the

uterus; and the best means of affording relief to the patient are pointed out; but the injection of tepid fluid into the vagina and uterus, in such cases, is, as appears to us, hardly so much commended as it deserves.

We shall offer no observation on the subject next under consideration, viz. relaxation of the uterus, and collapse after delivery, except to express a wish, that the allusion to the late lamented decease of an illustrious personage soon after delivery, though the accoucheur who attended is deservedly spoken of in laudatory terms, had been altogether omitted.

Though parturition, when the head is the presenting part, very commonly terminates safely within twenty-four hours, yet occasionally, and the proportion is by no means inconsiderable, a much larger time elapses, before the child is born, and the labour then becomes more or less difficult and dangerous. It is therefore of much importance to know in what manner we may best manage protracted labours; and Dr. Ramsbotham has entered much at large into a consideration of the duties which, in such cases, the accoucheur has to fulfil.

Protracted cases he divides into three orders: —

"1. Lingering labours, in which there is a mere consumption of time without any unfavourable symptom.

"2. Labours combined with a slighter degree of difficulty, but which cannot be surmounted by the natural efforts alone.

"3. Labours combined with an increased degree of difficulty, with a relative disproportion between the size of the head and the capacity of the pelvis."

Under the first head, after delineating with much correctness the usual occurrences of lingering labour, Dr. R. proceeds to investigate the means usually recommended for relieving or shortening the duration of the labour, under five different heads: —

"1. The internal exhibition of opiates.
2. The abstraction of blood.
3. The repeated injection of warm clysters.
4. The external use of warm fomentations.
5. The exhibition of *placebo* medicines."

Respecting the beneficial effects of opium, Dr. R. is somewhat sceptical. We have certainly witnessed cases in which the exhibition of this remedy has had the effect of suspending uterine action, which has never afterwards been efficaciously renewed, and, like Dr. R., "have several times been called upon to deliver by the forceps, when the labour had been previously interrupted by a large dose [or repeated doses] of opiate." But the abuse of a powerful

remedy ought not to operate as an interdiction of its judicious use; and opium, in many cases of lingering labour, is too valuable a remedy to be discarded. It ought not, however, to be indiscriminately used; and it is the opinion of some very experienced accoucheurs, that its exhibition should always be preceded by an aperient medicine, and sometimes by blood-letting.

Of blood-letting, Dr. Ramsbotham speaks favourably. "In cases when women are of a stout or full habit, when the skin becomes hot, the face flushed, the cervical veins turgid, and the patient complains of pain in the head, the loss of from twelve to sixteen ounces of blood, from a free orifice, proves highly beneficial. When the os uteri continues rigid for a length of time, under repeated returns of uterine action, with the head of the child incessantly pressing upon it, in the absence, as well as the presence of pain, a loss of blood, proportionate to the present strength, frequently produces a favourable change in the parts; after which, relaxation proceeds more kindly and successfully." Yet Dr. R. thinks, that abstraction of blood is seldom admissible, when protracted labour has lasted a long time, as it adds to that general exhaustion, which is an almost inevitable consequence of such long protraction. As a general rule, perhaps this may be proper; but if active fever, or local inflammation, occur during very slow labour, we cannot but think, that bleeding may be usefully employed, whatever may be the period of the process; and we entertain but little doubt, that in many cases, even when instrumental assistance is necessary, blood-letting may be advantageously premised, both to relieve present inconvenience, and to guard against future mischief, when the labour is terminated. Dr. R. has published a case, which shows strongly the beneficial effects of blood-letting, though the labour was of long duration. The labour began on Sunday evening, and on Wednesday morning, bleeding being resorted to, the patient was delivered by the pains alone in the evening. The state of the pulse, the tongue, and the skin, will generally enable the attentive Practitioner to determine on the expediency or necessity of this remedy.

On the three last means of relief adverted to, Dr. R. entertains sentiments, little, if at all differing from those of preceding writers.

We were desirous of learning whether Dr. Ramsbotham had any experience of the extraordinay virtues attributed to the secale cornutum, spurred rye, or ergot, as a remedy capable, under some circumstances, of exciting or increasing the active efforts of the uterus. But he states, that he has had

no opportunities of witnessing its effects, and he is sceptical as to their reality. The extraordinary influence of this drug upon the uterus has, however, been attested by too many competent witnesses to allow us to remain in doubt, that it is very often efficacious in rousing the dormant powers of that viscus.* But we believe that it sometimes altogether fails, and sometimes is productive of dangerous or unpleasant consequences —the death of the infant has often followed its exhibition. In the further consideration of "protracted labour under a natural presentation, combined with a slight degree of difficulty," we have the author's opinions on the use of the forceps and vectis. After some preliminary observations, enumerating a variety of causes which may occasion a necessity for employing instruments, the author thus proceeds: —

"Necessity, and necessity alone, then, is the only justifiable plea for the use of instrumental assistance; let us, therefore, now inquire into the nature of those marks and symptoms, the presence or absence of which, establishes that necessity. They are complex and various.

"1. The condition of the os uteri, and of the soft parts.

"2. The past and present degree of uterine action, with the effects it has already produced, and those it appears to be still producing.

"3. The relative size and situation of the head.

"4. The length of time the head has remained in the same situation in the pelvis, without advance on the accession or continuance of pain, and without retreat on the diminution or cessation of it.

"5. The lapse of time since the commencement of active labour.

"6. The extent of pressure upon the soft parts, and the time they have been subjected to it.

"7. The appearance of the vaginal and uterine discharges.

"8. The degree of permanent pain in the uterine tumour, and abdominal parietes.

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* It has been stated in some of the periodical publications, that Dr. Merriman was the first to call the attention of the obstetrical Practitioners in this country to the use of the ergot of rye. The Monthly Intelligencer, always zealous in the cause of its friends, attempts to put us right upon this point, and informs us that "Dr. Granville published much information on the same subject long before the appearance of Dr. Merriman's observations." This is true, as may be seen by turning to our Seventh Volume, page 247. But it is likewise true, that, many years before the appearance of Dr. Granville's observations, the virtues of the ergot had been made known in the Medical and Physical Journal. All that Dr. Merriman has done towards promoting a knowledge of this substance, consists in the publication of a few cases, which had occurred in his own practice, or been communicated to him by friends; and these appear to be the first cases in which the ergot was used in England.

"9. The obvious impression made on the system, by the continuance of the expulsive efforts, shown in the access of febrile symptoms, in the approach of exhaustion of the vital and animal powers, or in the attack of vomiting, or rigor.

"10. The age and natural constitution of the patient.

"11. A feeling of confidence, or of depression of mind.

"12. A first or subsequent labour.

"13. The previous state of health, and habits of life.

"14. The probability of the life or death of the child in utero.

"15. The temperature of the weather at the time prevalent."

And he afterwards enters into a very careful and judicious examination of each of these marks and symptoms, which we strongly recommend to the notice of our readers. The result of his investigation is, that it is proper, when several of the foregoing occurrences are present, and especially if exhaustion or febrile irritation be induced, to proceed without delay to effect delivery, by means of one or other of these instruments. But he leaves the choice of the instrument to the discretion of the Practitioner; and neither enters into a discussion of the merits of the variously shaped forceps, which have been recommended by different Practitioners, nor makes an elaborate comparison between the forceps and the vectis; though it is evident, that, upon the whole, he gives the preference to the former instrument.

Upon the subject, however, of the long forceps, Dr. Ramsbotham expresses himself in such terms as entirely agree with our own sentiments. He says;—

"The long forceps is recommended by some Practitioners as an useful instrument in cases in which the bulk of the head still remains above the brim of the pelvis. That the long forceps may now and then be successfully employed under such circumstances, I have had sufficient proofs; but it requires, in my opinion, very great judgment and experience to determine the particular cases to which this instrument is, *with propriety,* applicable. I acknowledge, that it possesses considerable powers of extraction; but it ought ever to be remembered, that any attempt to extract a full-sized head through an inadequate pelvis, by main force, will probably be followed by serious mischief from pressure: and the risk must ever be in proportion to the degree of violence used. The question is not, whether a head can be extracted; but whether it can be extracted without probable injury to those parts through which it is made to pass. I think this instrument, then, only applicable to those cases in which, either there is no deformity at the brim, or in which the malformation is very trifling."

We believe, from frequent opportunities of judging, that many mistakes have been committed respecting the use of instruments in midwifery; and that, in fact, we are not by any means so well informed, either as to the proper

occasions of employing instruments, or the kind of instruments which can, with advantage, be used, as we ought to be. It would not be difficult to show, that those whom we have been accustomed to look up to as guides in such matters, were in fact inaccurate observers or incompetent judges. For instance, the late Dr. Leake, a celebrated teacher of midwifery, thought that the common forceps with two blades, was an insufficient instrument, and that it required three blades in order to take effectual hold of the child's head; but so little did he actually know upon the subject, that he has delineated, as the common position of the child's head, a presentation which, according to Baudelocque's experience, does not occur more than once in 3,300 cases. Baudelocque himself has given a representation of Levret's huge forceps, very neatly applied over the ears of the child, the lowest part of the head being three inches and a half from the point of the coccyx, the ear six inches and three quarters from the same point, and the os uteri open only to the extent of two inches and a quarter in diameter. We ask any person conversant with the forceps, whether, under such circumstances, it would be possible to introduce these immense instruments? Baudelocque, very likely, thought that he had applied them after this fashion; but our belief is, that he had deceived himself.

It has of late become a sort of fashion to speak favourably of the long forceps, and we recollect to have seen in one of the periodical Journals a strong recommendation of them, grounded upon their successful employment by Chaussier, as exhibited in his tables, which we have not seen. If those who recommend them, mean only to advise their use when the head is in such a situation as to allow the ears to be felt, in which case the short forceps will generally succeed, the recommendation resolves itself into a question, as to the merits of the two instruments, which is not of sufficient moment to be at present largely debated. But if the long forceps are proposed to be employed in the manner represented by Baudelocque in the plate already alluded to, before the os uteri is properly dilated, the use of them is pregnant with so much danger, that we must protest against its general adoption. Or if it be proposed to employ the long forceps as a substitute for the perforator, in cases of very distorted pelvis, we beseech our readers to be upon their guard against such recommendations. We were conversing lately with a very intelligent Physician on the subject of midwifery. He had just returned from attending the lectures of the celebrated Professor Osiander, whose obstetrical instruments he brought with him to London. And he informed us that Osiander, with his long forceps, one of the most unwieldy instruments we ever saw,

could extract the head of a full grown child, alive, through a pelvis whose conjugate diameter was only from two and a half to three inches. We procured from a lecturer on midwifery a two and a half inch distorted pelvis, and a fœtal scull of moderate, or rather small size, with the view of ascertaining whether this was possible, but the operator might as well have tried any other impossibility. It could not be done. We are convinced, therefore, that cases in which the long forceps can be advantageously and safely used, are of very rare occurrence. We cannot do better than refer again to Dr. Ramsbotham's experience. He states in case 50, that being sent for to a woman who had on a former occasion been compelled to submit to the operation of having the child's head opened, he thought it possible that he might deliver by the long forceps, and perhaps save the child; the space from the sacrum to pubes being about three inches. He applied the instruments, and with difficulty brought down the head, but the child was not born alive. It is evident, from the manner in which he speaks of his exertions on this occasion, that he would not willingly undertake such another delivery. Yet this may be considered as at least as favourable a case for the long forceps, as any deformed pelvis can present, the space between pubes and sacrum being three inches: but what was gained? much suffering, and not a little hazard to the mother, and the child was born dead. What the result would have been, had this case occurred to an unskilful Accoucheur, may easily be conceived.

We must not venture to touch upon the two next topics discussed in the present volume, viz. Protracted Labour, requiring the perforator, and Rupture of the Uterus; lest we should extend this review to too great a length. We must, therefore, refer our readers to the work itself, assuring them that a perusal of these two sections will well reward them for their trouble.

Upon the whole, we consider Dr. Ramsbotham's work to be one of standard merit. Had his professional avocations permitted, he would perhaps have given it a higher polish before he submitted it to the public. The cases in particular would, we think, have admitted of a more convenient arrangement, and several of them might have been shortened without impairing their effect; but they are evidently faithful relations of what happened, and not selected to answer a particular purpose. Again we repeat, that a great mass of information is contained in this volume, and we hope Dr. Ramsbotham will meet with encouragement to pursue his design of publishing a second. Can we say more in commendation of the present?

II.

A Treatise on Indigestion, and its Consequences, called Nervous and Bilious Complaints, with Observations on the Organic Diseases in which they may sometimes terminate. By A. P. W. Philip, M.D., F.R.S.E., &c.

If the above title should excite in the minds of any of its readers the ideas of common-place and *ad-captandum* matter, such readers have only to look further down upon the name announced as the author of the book, and they will then be ready to abandon their unfavourable anticipations. Dr. Wilson Philip is confessedly one of our classics in modern medicine; and if those who read his works do not always find themselves entire converts to his doctrines, they cannot fail to admire the ingenuity of his argumentation, the perspicuity of his style, the appearance of earnestness and sincerity which characterizes his enunciations, and the gentlemanly candour which pervades his pages.

In the preface to the treatise before us, he tells his readers that his chief objects have been "to give arrangement to the various affections which have been named nervous and bilious; to ascertain the nature of the disease on which they depend; to trace the causes which determine them to assume the various forms in which they are presented to us, and to determine the appropriate treatment of each of these forms."

Dr. Philip divides indigestion into three stages, viz. first, in which the disordered function is confined to a derangement of action merely; secondly, when the vascular structure of the organ more particularly concerned comes to be in some measure implicated; or when, from having been a nervous and general, it now becomes an inflammatory and topical affection; and lastly, when this nervous and inflammatory, this general and local malady, has brought on an actual change of structure, or when the disease has become decidedly *organic*; "and it is a curious fact, one moreover of the greatest importance in the treatment, that the organic affection rarely takes place in the original seat of the disease, but in other organs with which the stomach sympathizes, the liver, pancreas, spleen, mesenteric glands, lower bowels, heart, lungs, brain," &c.

"Thus, when the body is examined after death, the patient is said to have died of disease of some of these parts, and there is nothing in the appearance of the organs in such cases, to distinguish them from diseases which originate in the organs themselves. It is only by a careful attention to the history of the particular case, and to the known laws of the animal economy, that we are enabled to distinguish the sympathetic from the primary disease."

This distinction, then, and the careful recognition of those symptoms which indicate that indigestion is passing from its first to its second stage, seem to constitute, in Dr. Philip's mind, the main object which pathology and practice should have in view while contemplating the peculiarities, and bearings, and remedial demands of indigestion, which thus becomes a comprehensive cognomen of disordered states.

The symptoms of the first stage of this disorganizing process scarcely need be pointed out to the readers of the Repository; they are, flatulence, distention, acid and offensive eructations, a general state of debility and depression, irregularity of bowels, defective or depraved appetite, thirst, foul tongue, change in the appearance of the urine, cold feet, and the whole cohort of deranged perceptions which are classed under the vague and sweeping terms of nervous indispositions.

The second stage announces itself by

"A permanent tenderness on pressure, sometimes but slight, of the soft parts close to the edge of the cartilages of the false ribs on the right side, after they have turned upwards, to be joined to the sternum. This spot is often very circumscribed, and always lies about half way between the end of the sternum, and the place at which the lowest of the cartilages begins to ascend; and the cartilage itself, near the tender part, often becomes very tender, not unfrequently, indeed, much more so than the soft parts. The patient in general is not aware of this tenderness till it is pointed out by the physician."

The pulse is now hard, a very important diagnostic of the local conditions above adverted to, and the presence of which must be carefully sought for by a gentler pressure on the artery than is usual in feeling it. Tenderness then in the epigastrium, and hardness of the pulse, constitute, together with their consequent symptoms, the great line of demarcation between the first and second stages of indigestion; and now, as the nature of the disorder is different, so must the plan of treatment vary; and should not the malady be here met and encountered by appropriate measures, the consecutive and organic changes of which we have above spoken, sooner or later make their appearance, and hepatic, pancreatic, splenic, mesenteric, enteritic, cardiac, *pulmonary*, or encephalic disease, establishes itself according to age, constitutional predispositions, or particular circumstances.

Previously to entering upon the causes of indigestion, Dr. Philip takes a general view of the circumstances connected with the digestive process, and his experiments on animals have enabled him to develope a good deal of what is very interesting in reference to the laws of ventricular agency on newly received food. On examining the stomachs of rabbits, which have been suddenly killed by a blow on the back part

of the head, at various periods of digestion, "the first thing that strikes the eye, in those which have recently eaten, is, that the new is never mixed with the old food. The former is always found in the centre, surrounded on all sides by the old food, except that on the upper part between the new food and the smaller curvature of the stomach there is sometimes little or no old food." "All around, the more the food lies to the surface of the stomach, the more it is digested." Such is the state of things in the cardiac portion of the stomach: towards the pylorus it is different. Here it is more equally digested, "the central parts differing less from those which lie near the surface of the stomach," and it is more uniform and digested the nearer it approaches the pylorus. The process then consists in "that part of the food which lies next the surface of the stomach, passing towards the pylorus, and the more central parts approaching the surface." This process explains the fact first noticed by John Hunter, of the stomach's solution after death, which was always found in the great end of the organ where digestion appears to go on so rapidly, and

"Why it should take place without even the food being digested, is evident from what has been said. Soon after death, the motions of the stomach, which are constantly carrying on towards the pylorus the most digested food, cease. Thus the food which lies next to the surface of the stomach, becoming fully saturated with gastric fluid, neutralizes no more, and no new food being presented to it, it necessarily acts on the stomach itself, now deprived of life, and on this account, as Mr. Hunter justly observes, equally subject to its action with other dead animal matter."

Having thus adverted to this curious process, by which the aliment comes to be applied to, and recede from, the coats of the stomach, and is in this manner projected to the pyloric extremity of the organ, Dr. Philip introduces a few remarks on the effects upon the digestive function of dividing the eighth pair of nerves. This division prevents the due formation of the gastric fluid, and of course arrests digestion; but it is a curious fact, that when an animal is killed some time after this division, and has lately eaten, the food is not only found undigested, but nearly in the same condition in all parts of the stomach. This last fact our author explains by assuming, that the usual motions of the stomach continue after the division of the nerves, while the animal still lives; and thus all the *digested* food is sent onwards towards the duodenum, the remaining food continuing uniformly undigested, from the circumstance of the gastric secretion being suspended.

The sensation of hunger would appear to arise from the action of the gastric fluid upon the coats of the stomach when

it has no aliment upon which to exert its influence; a supposition which seems to be confirmed by the following experiment:—

"A person in good health was prevailed upon to abstain from eating for more than twenty hours, and further, to increase the appetite by more exercise than usual. At the end of this time he was very hungry, but, instead of eating, excited vomiting by drinking warm water, and irritating the fauces. The water returned, mixed only with a ropy fluid, such as the gastric fluid is described to be by Spallanzani, or as I have myself obtained from the stomach of a crow. After this operation, not only all desire to eat was removed, but a degree of disgust was excited by seeing others eat. He, however, was prevailed upon to take a little milk and bread, which in a very short time ran into the acetous fermentations, indicated by flatulence and acid eructations.

"It seems (continues our author) an inference from this experiment, that the pains caused by hunger may be prevented by constantly exciting vomiting; and the death which arises from it converted into inanition. People live for weeks without food in fevers, where there is no secretion of the gastric fluid."

From what is known, then, of the functions of the stomach, it is evident that this organ may be deranged, either by causes affecting its *secreting* power, or those deranging its *muscular* energy. Narcotics effect the latter, and all the agents indeed which have a direct influence upon fibrous organization. But the most frequent cause of muscular derangement of the stomach is over-distention, and one of the most common sources of morbid distention is eating too fast; time not being given for the gastric fluid "to combine with that part of the aliment which is presented to it, till so much is taken that the whole gastric fluid which the stomach is capable of supplying during the digestive process is not sufficient to effect the due alteration on it."

High seasoning, too, of food is a source of over-distention, inducing to eat after the appetite is satisfied; and it should be recollected, that although undue distention affects primarily the muscular power, that its operation comes soon to be extended to the nerves of the stomach, and that these being thus implicated, the secretory power of the organ becomes likewise interfered with.

The causes of indigestion which act through the medium of the whole system, or by sympathy, need not be named.

With a knowledge of the laws which regulate local and sympathetic affections, it does not seem difficult to explain the *modus operandi* of the remote causes in producing the first stage of indigestion; but the occurrence of epigastric tenderness, constituting the second stage of the complaint, requires

more particular attention. All the contents of the stomach must necessarily pass by the pylorus; " now, in the natural situation of the viscera, exactly in the tender part of the epigastrium, the pylorus lies, with the thin edge of the liver upon, and in contact with it;" and when we reflect upon the fact, that nervous and muscular soon, under certain circumstances, become vascular irritations, and that these extend by juxtaposition,

" Can we doubt, that when we find the tenderness with some degree of fulness gradually extending downwards along the soft parts on the edge of the cartilages of the right side of the epigastrium, and at length ending in evident enlargement and tenderness of the liver, that the affection of the pylorus is communicated to the thin end of this organ with which it is in contact, thence by degrees extending to its other parts? Thus it is that of all the neighbouring parts, no other so frequently partakes of this affection of the stomach. It is doubtless in the same way that the habit of drinking spirits, which must apply so great a degree of irritation to the pylorus, seldom fails to produce affections of the liver."

To constitute this second stage of indigestion, the epigastric pain, or tenderness rather, must be constant, and not merely temporary; and a gorged liver or a distended duodenum may create an uneasy feel, which, without due attention, might be referred to pyloric irritation. In these last cases, besides the want of permanence in the symptoms, the uneasiness is rather hypochondriac than epigastric, and is more diffused; the pyloric tenderness generally being limited, for some time after its commencement, to " a space not larger than a shilling." The manner in which the causes operate to the production of the third stage of indigestion, may be inferred from what has already been said respecting its nature.

The treatment of the disease must necessarily have respect to its stages. A suitable diet, with due exercise of mind and body, with the occasional interposition of an emetic, often constitute the whole of what is requisite in simple derangement of the stomach, and its primary consequences. Dietetic rules need not detain us long; indeed individual experience in these matters, is, for the most part, a better directory even to the patient himself, than any the physician can furnish him with. Dr. Philip does not agree with some physiologists of celebrity respecting the propriety of wholly abstaining from drink at meals, but he allows that " there cannot be a more erroneous idea than that which induces some people to drink during meals, for the purpose, as they say, of assisting digestion, when they feel no desire for it." Our author is averse from that principle which would forbid altogether the use of alcohol in any shape.

" A very moderate use of wine can hardly be said to be injurious. We see those who use it in this way live as long, and enjoy as good health, as those who wholly abstain from it; and to some constitutions, independently of the effects of habit, it may be useful. I believe neither of these observations applies to distilled spirits; although, when the stomach has been greatly weakened by excess, so that it cannot digest any fermented liquor which has not been distilled, the effects of diluted spirits are often less injurious than the total collapse of the system which ensues on wholly withdrawing the accustomed stimulus."

For the purpose of supporting a regular action of the bowels, Dr. Philip informs us, that he finds " nothing so generally useful as pills composed of ipecacuanha, compound extract of colocynth, and soap, occasionally taken at bed-time;" a composition which seems to promote the action of the stomach at the same time that it excites the bowels.

" When the alvine discharge assumes an unnatural colour, we may be assured that the disease has spread further than the alimentary canal. The secreting power of the liver, and probably of the pancreas, partakes of it." And now mercury may be used with great caution; either calomel, to be purged off the next morning, or four or five grains of the blue pill every second or third night, according as we wish the medicine to pass off speedily, or to be retained longer in the system. The first plan is required where the distention is greatest, the second when there is not so much of fulness in the hypochondrium, and more of debility. A warm mercurial plaster worn for weeks or months, may prove serviceable in cases where there is an obstinate tendency in the complaint. The taraxacum, Dr. Philip thinks, in the general way, best suited to an after stage of the malady.

When the second stage becomes established, bitters and aromatics are found rather injurious than serviceable. We have now to subdue inflammatory irritation, but still we must recollect the prevailing and primary debility. Leeches are to be applied to the tender epigastrium, and after these, tonics will sometimes be indicated, and well borne; but the use of these is only admissible when the second stage of the disorder has been present only for a short time. A blister to the epigastrium, after local blood-letting, is often highly useful; and if the inflammatory symptoms still continue, " a perpetual drain, established in the most tender part, is often followed with the best effects." In this state of things, very small doses of mercurials will frequently operate very favourably, " sometimes only half a grain of the blue pill twice or three times in the twenty-four hours," may be given till the secretion of the bile assume a healthy appearance. By this plan, " the skin

becomes relaxed, the pulse more dilated, and the expression of the countenance better." The occasional aids of aperients and of topical blood-letting, must still be kept in view. The intermediate use of the mineral acids is often of considerable service; and the taraxacum may be employed with hopes of utility; a strong decoction of dandelion may, indeed, be used for common drink, without the aid of any other medicine. The above treatment, with modification, requires to be instituted when the second, or inflammatory stage of indigestion, may have extended itself from the pylorus by sympathy to the liver, to the other viscera, or to the brain: in which last case, we have often very alarming and sometimes perplexing symptoms to deal with; the sympathetic disorder of the encephalon being constituted now of merely nervous debility, and now of inflammatory irritation.

When, however, the sympathetic affections become permanent, and involve structure as well as action, the third stage of the disorder is established, and the complaint becomes nominally one of the respective organs implicated. These several affections, our author does not follow out, excepting in that instance which is more common than any other, viz. dyspeptic phthisis: with remarks on the diagnosis and treatment of this species of consumption, and additional statements to those elsewhere made of the use of galvanism in habitual asthma, the volume before us is brought to a close — a volume which, we need not repeat, is highly creditable to the discernment and good sense of its learned author. The only two drawbacks to its excellence are, as it appears to us, a rather too great partiality, or *con amore* leaning to "digestive organ" pathology, with hardly a sufficient recognition of lymphatic and other constitutional propensities; and a little too much of common-place and repetitory matter in the detail of dietetic regulations.

III.

A Practical Essay on Ringworm of the Scalp, Scalled Head, and the other Species of Porrigo. By Samuel Plumbe, Member of the Royal College of Surgeons of London; of the Medical and Chirurgical Society, &c.

That Medicine is a science somewhat different from all others in respect to the degree of certainty attached to its principles, will be pretty generally admitted; and a great part of this uncertainty we are wont to attribute to the circumstance, that the objects of our investigation are concealed from view. That this, however, does not constitute

the whole of the difficulty with which the pathologist and Practitioner have to contend, is pretty evident, from the fact, that those deviations from the healthy state which implicate the surface, and which are therefore obvious to the senses, are as much the subjects of doubt and disputation as are those, the nature and remedial demands of which are inferred from symptoms, and not from sight.

Far, very far, indeed, are medical men from an unanimity of sentiment on the question even of nomenclature; and while some publish books full of detailed and distinguishing divisions of diseases of the skin, others laugh at them for their pains, and taunt them with appeals to their own principia, as containing in themselves the ingredients of self-destructibility. You talk to us, they say, of papular and pustular eruptions as absolutely different in their nature and essence. You describe prurigo as a genus of one order; scabies as belonging to the other; and yet you admit the occasional convertibility of the former into the latter, and thereby in terms acknowledge not only the defective, but positively erroneous tenor of your classifying assumptions. Leave to us our few but untrammelled notions — our "crust of bread and liberty," and we will engage to encounter cutaneous disorders with as much certainty and success as you who darken counsel by words and systems destitute of knowledge.

In medio, in this, as in most other matters, is still our motto; and, although we cannot subscribe to Heberden's position, that no specific affection of the skin has hitherto been satisfactorily made out beyond what may be comprehended under the terms scorbutus, lepra, scabies, herpes, and porrigo, we are of opinion, that the cutaneous, like the craniological systematics, have divided and subdivided often to an unjustifiable extent.

Such being the uncertain state of things, in reference to skin affections, a sensible and well-conducted attempt to improve any part of dermoid pathology and practice, must be received with complacency; and we are happy in being able to say, that we have perused the tract before us with no inconsiderable satisfaction, thinking, as we do, that an attention to the precepts it enjoins, may be productive of much benefit in the particular complaints adverted to by the author.

"As a proof," says he, "of our deficiency of sound principles in the treatment of porriginous disease, I need only refer to the common management of that very common form of the affection, the chief subject of my present essay, the porrigo scutulata of Willan, or common ringworm. Who has not heard of numberless topical applica-

tions, as opposite in their chemical and medicinal properties as can well be conceived; yet each relied on singly for a time as a decided specific? And how common is it, in the treatment of this affection, to see medical men changing one preparation of mercury for another of sulphur—a solution of lunar caustic for a decoction of tobacco, as applications; with no other idea, than the possibility of falling by chance on something which may be successful."

The want of scientific precision in curative indications, Mr. Plumbe attributes to a neglect of recognising the particular action of the vessels concerned in the production of disease; or to considering this "of less importance than the external appearance, the consistence, colour, or structure of a scab; the neglected filthy accumulation of the secretions of the diseased parts!"

Mr. Plumbe does not accord with Dr. Willan in thinking that all the species of porrigo may be produced from the same contagion. The porrigo larvalis, or crusta lactea, of former authors, is specifically, he maintains, different from the other species; and the matter from which is neither capable of producing a disease of its own kind in a part previously healthy, nor of giving rise to any other porriginous affection. The scutulata, furfurans, and lupinosa, *are*, in Mr. P.'s opinion, the result of one specific contagion; and the different characters which they assume are rather incidental, and not of much importance. He states, that the porrigo decalvans is of such rare occurrence, as to make it difficult to form a decided opinion, as to the manner in which it is produced. That the pathology of this last affection may be difficult, we readily allow; but we are rather surprised at the statement of our author, in respect to its extreme rarity, since, without having our own attention especially called to the subject of cutaneous disorders, we have occasionally met with it. The porrigo favosa is, Mr. P. asserts, as well as the larvalis, the result of a different poison from the three species above named. The *favous* pustule which characterizes it, goes regularly through its course, and does not show "any of the obstinacy of the scutulata, the dry inactivity of the lupinosa, or the morbid secretion of cuticle, which distinguishes the furfuraceous disease."

An eruptive disease, commonly known by the name of ringworm, is, in the opinion of Mr. Plumbe, the same affection, appearing in other parts of the body, as the porrigo scutulata of the head. Indeed, the matter is almost made a subject of demonstration, when we see, (as in some cases is seen) that the eruption on the heads of children, constituting the ringworm, will produce the former, and *vice versa*. We are, indeed, of opinion, and Mr. Plumbe seems to think with

us, that porrigo and actual impetigo may be more nearly connected than is usually allowed.

Do pityriasis and other furfuraceous and scaly diseases of the scalp, ever degenerate into true porrigo scutulata? Mr. Plumbe acknowledges, that there are several difficulties connected with the supposition of this convertibility, but seems, upon the whole, inclined to think that it does exist; and in this opinion we coincide with our author.

But to the peculiarities and treatment of the confirmed ringworm of the scalp, has Mr. P.'s attention been principally directed in the tract under review; and we now, therefore, hasten to present a brief account of his particular mode of managing the complaint.

"The symptom," we are told, "by which this disease is usually first discovered, is the falling off of the hair of the part. The attention being attracted by this occurrence, the scalp appears, on examination, to have assumed a somewhat scurfy and slightly reddened appearance. The hair remaining on the diseased part is thin and irregularly scattered over it; the greater proportion appearing to have been removed by the roots; while some have been broken off near to the scalp, the roots of which still retain their situation. Those which remain apparently growing on the part, *will be found to drop off on friction; or to have, on being pulled, scarcely any hold on the scalp.*"

Now it is maintained by our author, that the hair and the cuticle are not, as is conceived by some, produced by the same vessels of the cutis, but the former is dependent for its support and nourishment on "a set of vessels expressly designed for the purpose, which vessels are distributed on the adipose capsules, in which the bulbs of the hair are placed. Two importantly different productions, therefore, of solid structure, independently of the fluid secretions of the part, are constantly going on within an extremely minute space; and the influence of disorder in one must consequently be expected frequently to affect the other."

To this circumstance, Mr. Plumbe insists, is referrible a great deal of the obstinacy and peculiarity of the porrigo scutulata, in its confirmed state. Pustules only occur where hair exists, and each pustule has usually one in its centre; while the vessels which secrete the cuticle are in a state of morbid activity, from the influence of the disease, and the cuticle is therefore unduly secreted, and appears in the form of scurf, the structure which secretes the hair is deprived of its due supply; and this latter, therefore, becomes an extraneous irritating substance, causing pustules. "The specific irritation of the disease obtains (thus) an accession of strength from the local influence of the hair, where it

penetrates the scalp, and the formation of a pustule is the consequence of such accession."

Unless, then, a minute and careful attention be given to the removal of every hair around which a pustule may be formed, we cannot expect success to attend any measures instituted for the purpose of curing obstinate cases of porrigo scutulata. This removal of the hairs must, however, be limited to the extraction of those which come away easily, and without pain to the patient; for it is only these that have lost the means of support and nourishment, either as the consequence of the formation of a pustule around them, or from the influence of the irritation of the disease on its secreting structure. Shaving the part, though necessary after all the loose hair has been removed, must not be considered as a substitute for such removal; for the extremities of the loose hairs would, by merely shaving, be left "sticking in the skin, and exciting a considerable degree of subsequent irritation, and, possibly, an increased number of pustules." The removal of the hair having been effected, the discharge of the pustules is to be promoted by pinching up the skin between the finger and thumb, and carefully washing away what is thus forced out; and now, the parts having been washed with warm water and soap, "some astringent application, possessing *the power of taking from the secretion its infectious properties, and at the same time sufficiently powerful to constringe the vessels from which it flows, and lessen its quantity,* may be made use of."

Mr. Plumbe recommends for this purpose the rubbing of sulphate of copper in very fine powder over the part, and then washing it off, as preferable to the solution. A careful examination should be instituted every morning; and if any pustules appear, they should be at once removed, and the sulphate of copper applied. When a great number of pustules have been formed, we cannot expect a complete regeneration of healthy hairs in less than six weeks or two months. It must ever be recollected, that the depilation here recommended, is very different in its principle from that implied by the application and tearing off of the pitch cap. "The forceps are applied only where the disease exists, and to hair already loosened. The slightest degree of force is sufficient to remove such hair, where force is at all necessary; and no pain will be found to attend it." Pressure, by means of adhesive straps, so as to prevent a too speedy removal of the hair, with cold lotions, are sometimes necessary, when the case has been of very long standing; but the great principles in the management of the affection, are the obviating irritation and pustular formation, by the removal of extra-

neous hairs, and the application of astringent materials. All unctions and greasy applications, which have not the power of destroying the infectious properties of the pustular contents, are worse than nothing.

Internal remedies, unless in cases of sympathetic irritation from the malignancy of the complaint, or cachectic disposition of the subject of it, are, in Mr. Plumbe's opinion, not necessary. He is disposed to think, and in this we deem him correct, that digestive organ doctrines have been too indiscriminately and too loosely acted on, in this and some other cutaneous complaints.

In the favous species of porrigo, our author, on the contrary, thinks that there are few points of importance, with regard to the treatment, required, "beyond those which are comprehended in attention to the general health." When it affects the hairy scalp, it will be necessary to remove the scabs by warm water and soap, and to shave off the hair. In this form of porrigo, Mr. Plumbe likewise recommends one of the following fluids to be applied to the abraded surface two or three times a day:—

℞ Argent. Nitrat. ℈j.
Aquæ distill. ℥j.

℞ Cupri Sulph. ʒj.
Aquæ fervent. ℥ss.

This, like ringworm, is an infectious disease.

The furfurans, it has already been intimated, seems to be but a minor degree of the scutulata, and therefore the principles of treatment are the same; but washing the scalp with soap and water, and the application of a spirituous lotion, will serve often, without any thing else, to prevent the accumulation of scurf, and subdue the inflammation. A weak solution of the nitrate of silver may be used with advantage, when the scurfy exudation becomes chronic and obstinate.

The lupinosa is also deemed a modification of the scutulata; and the same principles applicable in its treatment. The difference between the two is supposed ascribable to a varied state of either constitutional or cutaneous susceptibility. In all porriginous affections, attention to cleanliness constitutes a cardinal point in the management.

We have thus given a hasty sketch of Mr. Plumbe's book, which, it may be added, is penned in a pleasing style; and (with the exception of some defective, or, at least, very strange punctuation, and here and there a little oversight, in respect of relatives and antecedents,) is deserving of every praise, even as a literary performance.

PART III.

SELECTIONS.

An Account of a Lusus Naturæ. By JOHN LIVINGSTONE, Surgeon of the British Factory at Canton. Communicated by J. R. MITCHELL, M.D., &c.

[*From the Philadelphia Journal of Medical and Physical Science*].

IN Europe, monsters never fail to excite much public attention; they readily obtain a place in museums, and the cabinets of the curious; and even slight deviations from nature, such as a finger or a toe more or less, have been the subject of elaborate memoirs, perhaps in many respects disproportionate to their real importance. In China, the case is quite otherwise. We know of no such collections. I understand from Dr. Morrison, that their books are silent on this subject, and the very extraordinary and interesting monster, which I am about to describe, was born only two days' journey from Canton, about sixteen years ago; has been exhibited at Canton, and all round ever since; yet, as far as my inquiries have extended, no account of this LUSUS NATURÆ has hitherto been drawn up, or has come to the knowledge of any European.

When I was informed, that a monster was to be seen in a temporary enclosure, near St. Agostinho's Church, Macao, I lost no time in attempting to gratify my curiosity; but I learned that the monster was then unwell, and had retired to rest. I then formed the resolution of having him brought to my house, for the double purpose of more deliberate observation, and having, at the same time, a correct model made under my own eye: but aware that the only good artist then in Macao was employed, I deferred giving my orders for a few days; in the mean time, the monster unexpectedly left Macao.

However, the modeller had made such careful observations of the subject, that he informed me he could make an exact representation of what he saw. He has succeeded so well, that I am assured by many friends who had carefully examined the original, that the model is wonderfully exact. A few important exceptions shall be pointed out in the order of my description. I have spared no pains in collecting information from every quarter. I have had the advantage of receiving accounts from a great many intelligent friends,

among whom, I have the pleasure to mention three medical gentlemen of this place. All their accounts agree surprisingly well. The model has been shown to many of them, and my account read, with both of which they are entirely satisfied—so I am persuaded that my own observations could not have added much either to the value or variety of those which I have been so fortunate as to receive from others.

A-ke was born sixteen years ago, in the district of Yun-lang-yuen, with another male child of nearly the same size united to the pit of his stomach by the neck, as if his brother had plunged its head into his breast. The skin of the principal here joins that of the upper part of the neck of the parasite, quite regularly and smoothly, excepting the superficial blood-vessels, which appear somewhat turgid. The sufferings of the mother were so great, that she survived the birth of this monster only two days.

Since that time, the parasite has not much increased in size*, and at present is not much larger than new-born infants usually are; but the bones are completely formed. The shoulder bones are remarkably prominent. Here the model is faulty, since it represents the roundness of infancy; but all this plumpness has disappeared from the original, where bones seem only to be covered with skin. The hips of the model are too prominent. The manner in which the thighs appear is quite happy; but the feet, particularly the left, are not sufficiently clubbed. In the original, generally the feet and toes are less perfect than in the model. The toes adhere, and one or two are wanting.

The attachment of the neck of the parasite to the chest of the principal, admits of a semirotatory motion. The natural position of the bellies is towards each other; but

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* I have the authority of Lieutenant-General Wood, for stating, that a careful admeasurement of the parasite was made at his request; the trunk and neck measured about eleven inches, and the longest limb thirteen inches, making the extreme length two feet. This accords sufficiently well with the size I have mentioned; but as the modellers in China do not work by any scale, it would be useless to deduce any *exact* measurement of the whole figure by knowing a part.

Note.—General Wood is still at Macao, waiting a passage for England. The general had A-ke at his own house, and examined him with great attention. He saw the pair urinate simultaneously; but had no opportunity of witnessing the consentaneous erection or *stillicidium*, mentioned by Dr. L——. The India Company's printer at Macao, saw A-ke often, and has sent his statement concerning him to England.—J. R. M.

A-ke can turn his brother so far round, that he can bring either side towards his own belly. He also shows that his brother's arms can be moved freely. The thighs and legs remain stiffly bent, as represented in the model: the thigh being anchylosed with the *ossi innominata* above, and the *tibiæ* below. The genital organs appear too perfect in the model, since no vestige of testes, and very little scrotum, can be perceived in the original. The *penis* is, however, large in proportion, and the *glans* about half covered with the prepuce, and is subject to occasional erections, in which state, a *stillicidium* of a mucous fluid from the *urethra* has sometimes appeared; and has induced a belief among the Chinese, that the seminal fluid is copiously secreted. The kidneys seem to perform their functions perfectly. The anus is wanting.

A-ke is now about four feet and ten inches high, of a feeble frame and sickly appearance; but excepting the incumbrance above described, he is in all respects perfectly formed. He appears to be sufficiently conversable and intelligent, and says he has the same feeling of pain, if any part of his brother's body is hurt, as if it was the same part of his own body; even the slightest touch which would be perceptible, if applied to his own person, is equally perceptible, if applied to his brother. This statement was most satisfactorily confirmed by an ingenious medical gentleman, who, observing A-ke's attention to be fully employed, and his head turned away in a contrary direction, pinched quickly the hip of the parasite; A-ke instantly struck the same part of his own person, just as if that had been the pinched place.

Formerly he had reason to imagine, from certain obscure motions which he perceived within his brother, when he was himself in pain, that all their feelings were reciprocal; but for some time past he has not been sensible of this, excepting when he has occasion to make water. His brother then never fails to void his urine at the same time, whether he has occasion to relieve nature, or to gratify the curiosity of spectators.

A-ke's respiration is never perfectly free; on the contrary, it is commonly laborious, and on the slightest exertion, such as walking to a little distance, ascending a flight of steps, or the like, he breathes quickly, and with difficulty. To relieve this, he supports the parasite with his hands; but to obtain any considerable degree of ease, a recumbent posture is necessary. His pulse is commonly quick and small. Mr. Gomez felt distinctly the pulsation of the carotids in the neck of the parasite; it was feeble. He also examined carefully the pulse at the wrists; it was very slow (*valde lente*).

The usual temperature of both is natural. A-ke wears an unusual quantity of clothes, yet he never appears to perspire

even in the warmest weather. His usual gait is unsteady and feeble; when he walks up or down stairs, he supports himself with one hand, and his brother with the other, and brings both his feet upon the same step, before he attempts to advance another foot.

When in his best state of health, he informed Mr. Gomez his appetite was so good that he could take as much food as any three of his age; at present, his health in general is much impaired. He complains of weakness of stomach, loss of appetite, defective and painful digestion: so it is commonly thought that he cannot live long. His countenance is sallow, and more emaciated than it appears in the model.

A-ke's father is one of the poorest class of husbandmen. He has been content to hire his son for five Spanish dollars a month to the man, who has for his trouble all the profits of the exhibition. Ten cash (less than a penny sterling) is the price of admittance into the enclosure, which they make in public places. He walks to private houses; the parasite appearing, while going through the streets, like a tumour under his clothes. On these occasions the exhibitor is content to receive whatever is given. He commonly gets half a dollar, or a dollar. The concern does not appear to be profitable.

Having stated all the circumstances of this wonderful and most interesting case, as fully as they have come to my knowledge, I might be excused from making any observations,—the field is ample, and no doubt a variety of ingenious opinions will be formed. I think, however, you will be desirous to have my reflections on some points; I shall therefore mention a few.

It will probably be admitted, that as the quantity of nourishment which the parasite derives from the principal system, is only sufficient to preserve life, without adding to the bulk of its parts, it receives blood only from small arteries, perhaps from the branches of the mammary arteries, where they freely inosculate with the large branches of the epigastrics, forming arteries which may either immediately anastomose with those of the parasite, and supply its veins and heart with blood, sufficient to support a species of circulation, similar to that of the *fœtus in utero,* the principal supplying the place of the *placenta;* or the blood may be returned to the principal by a set of veins peculiar to the parasitic state of existence. It is highly probable that the entire pulmonary system is wanting, or in a state of complete torpor; and from the flaccid appearance of the abdomen, we can scarcely doubt but the *chylopoietic viscera* are in a similar state.

Considering the Chinese account of the seminal secretion as founded in error, the parasite can only be regarded as having the kidneys in an efficient state, besides the circula-

tion of the blood, and absorbents. This state seems to admit of no other function.

This view of our subject accords sufficiently well with that theory of monstrous productions which supposes that two distinct embryons had coalesced by some accidental circumstance, which may have caused the amnions of each to adhere; and controverts an opinion which at one time had many advocates respecting the use of the *liquor amnii*. It may be conjectured on the same view, that the great sympathetic nerve of A-ke supplies the urinary and genital systems, and that the nerves of his skin are diffused over that of his brother also. All this will require that our notions of the nervous system shall be considerably modified before we can be enabled to account for the few, but decisive facts which belong to this part of our subject: to account for these uncommonly received principles, it will be necessary to suppose that the monster had the same conformation in the primordial germ. This conjecture removes some of our difficulties. It explains how the brain of A-ke is in all respects a *Sensorium commune* to both. That the parasite is therefore only a duplicate of the principal, is not more difficult to be imagined than a supplementary finger or toe. Here, however, our field expands into a wilderness, into which it would be unsafe to enter without a guide.—I shall therefore resign the task into the hands of more adventurous discoverers.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

We trespass, perhaps, a little upon propriety, in considering American to be *foreign* literature. But in looking over the contents of the last Philadelphia Journal, it struck us that the following account, which we extract from it, would be interesting to very many of our readers. Our transatlantic descendants are making great advances in science; and even in polite literature, the nation that can boast the author of the Sketch Book, possesses, in that circumstance alone, wherewith to reply triumphantly to the following taunting questions of the Edinburgh reviewers, which the editor of the Philadelphia Journal has selected for his motto.—"In the four quarters of the globe, who reads an American book? or goes to an American play? or looks at an American picture or statue? *What does the world yet owe to American Physicians or Surgeons?*"—*Edinburgh Review, No. LXV.*

On the Medical Character of the United States. By S. Colhoun, M.D.

The winds, which blow over a vast wilderness on the north and west, and the ocean on the south and east, subject the

climate of the United States to perpetual vicissitude: the northern differ from the southern districts in having seasons of predominating cold, giving a character of excessive rigour to the winter, of change to the autumn and spring, of moderation to the summer, according to the elevation of the latitude. The south, more affected by the sun, has a longer summer, a milder spring and autumn, and a shorter winter. The middle climates vibrate between these extremes, and the country beyond the mountains possesses a more moderate temperature, than that which borders the Atlantic Ocean.

The climate of the middle states exhibits in the spring the characteristic moisture of the British isles, as its most general feature; often the burning and malignant sky of the tropical regions in the summer, the mildness of the climate of Barbary in the autumn, and sometimes the atmosphere of Russia in the winter; frost has appeared in every month; in summer fire is sometimes necessary; in winter occasionally disagreeable; garlic, a vegetable common on the eastern border of the country, has been seen in January; blossoms in December and in February; and in the same months the temperature has descended to 22 degrees below 0 of Fahrenheit's scale. The spring is peculiarly variable, from the alternate influence of the sun and the winds from the north and west, sweeping across the continent between the inhabited regions and the Pacific Ocean. In general, there are thirty or forty days, in which the thermometer rises above 80, or sinks below 30 degrees, measuring the extreme heat and cold of the year. Winter commences about Christmas, and continues till the middle of March or beginning of April: as in the more northern districts of Europe, this season is diversified by high and tempestuous winds, heavy snows and rains, with sleet and hail in various succession. A protracted autumn often suspends its rigour till the middle of January; sometimes it commences in October, and encroaches upon the spring. The cold is often steady and regular, with a weak sun, cloudless and starry nights; the winds bitter and piercing from the north and west, the earth for weeks covered with snow, and the rivers and smaller streams with ice. April, often raw, sometimes mild and showery, is the first month of spring. In May, the weather is for a few days intensely warm, and generally continues temperate till the middle of June. Summer then commences; the excessive heats of July and August are moderated by heavy dews, by occasional showers and storms, accompanied with thunder, lightning, and sometimes hail, succeeded by agreeable winds, varying from the north and west. The mornings and evenings become cool and the days pleasant in September; in October, the autumn is com-

pletely established; the country is in this season most attractive and agreeable; the fruits of the year abound: the trees are beautifully variegated; and instead of the sombre and melancholy drapery of European forests, they have a gay and enchanting appearance; the mornings and evenings gradually growing colder, the country dreary and solitary, a few weeks of mild weather, with a smoky atmosphere, vary the month of November; as it advances, winds from the north chill the air, and foretel, by the fall of raw and cold rains, accompanied with sleet and snow, the approach of winter. These storms clear away; mild weather succeeds; the roads, generally dry and fine, render travelling agreeable, till winter appears in all its rigour.

The winds from the north and west, rendered severe in winter, by passing over extensive regions of snow, descend over the inhabited territories, exalt the tone of the system, and produce inflammatory disorders. During their prevalence, catarrhs, quinsies, pneumonies, consumptions, colic, asthma, gout, rheumatisms, continued and intermittent fevers in an acute form, occur. The eruptive and other diseases are then more inflammatory, and require more depletion. Common remittents become synochal, and intermittents change into continued fevers; convalescence is more safe, and dropsy or typhus more rarely a consequence of violent attacks. The same winds, cooled in summer by traversing a vast wilderness, the surface of the lakes, the sources and streams of innumerable rivers, appear occasionally, tempering the violence of the sun, and lessening the malignity of disease. Those, which pass over Mexico and its bordering ocean, are relaxing, and often accompanied by rain. In the east wind, cold and moisture combine to heighten the effect, and acquire their greatest power in the raw, chilling, and depressing currents, which blow from the north-east, over an extensive ocean. Diseases of a low type in this country, as in Europe, have been supposed to result from the prevalence of moisture; united with cold, it renders inflammatory diseases more frequent and protracted, and less susceptible of depletion; with heat, the air becomes pestilential, ordinary intermittents degenerate into typhus, and continued fevers become malignant, followed by dropsy and the various forms of nervous debility.

The waters of the United States falling into the lakes on the north, into the Gulf of Mexico on the south, find their way to the Atlantic, and produce disease, by the putrefaction of vegetable remains on the shores of rivers and arms of the sea, or by the formation of vapour on the surface of stagnant pools and marshes. The Alleghany, the principal range of mountains, divides the country into eastern and western

sections, tempering the air of summer, and increasing the rigor of the winter by the coldness of their summits.

The mode of living resembles that of Britain. Our food generally plain, sometimes luxurious, introduces in the cities of the middle latitudes, after the 4th of July, the festival of Independence, the diseases of summer; at Christmas, those of winter. The dress, particularly of the men, is adapted to the season; that of the women, sometimes light and fashionable, is a frequent cause of coughs, consumptions, rheumatisms, and other inflammations. The houses, constructed for warm rather than for cold latitudes, are rendered comfortable by the abundance of fuel. The character of the people varies in different districts. A mind highly enlightened, adventurous, persevering, and vigorous, from the necessity of exertion imposed by a sterile soil and a cold climate, distinguishes the north,—moderation and industry, the middle states,—enterprise, the prevailing quality of every region, receives in the south a characteristic shade from the moral constitution of society, from habits of luxury awakened by a genial climate, and strengthened by the abundant productions of a fertile soil,—whilst the west, towards which the tides of emigration are continually setting, displays, on a vast shore, fragments of population from the various nations of Europe, and districts of North America.

A general view of the origin of diseases will expose their comparative state in Europe and this country. Heat and moisture, and their contraries, are the causes evolved by climate and situation. In the north, at a distance from the ocean and great bodies of water, where the air is cold and dry, where, from the weakness of the sun and the unfruitfulness of the soil, incessant labour is necessary, the tone of the system becomes exalted, and the diseases are phlogistic in their type; accordingly, quinsies, pneumonies, consumptions, rheumatisms prevail; convalescence is more rapid; dropsies, nervous diseases, obstructions of the liver and spleen, disorders of the alimentary canal, and bilious fevers, are more rare. The winter season and mountainous exposures, particularly on their northern aspects, and in the young and laborious, develop this diathesis more fully, than the valleys and lowlands, sequestered from winds; in the former, an epidemic catarrh often becomes a pneumonic inflammation, intermittents change into remittents, remittents into synochal; whilst in the latter, they run into low nervous fevers, followed by a long convalescence, particularly among those who are debilitated by age, intemperance, or any natural or adventitious cause. In less elevated latitudes and exposures, lying near the ocean, or broken by rivers, lakes, and marshes, when cold and moisture

prevail, the system, lowered in its tone, is still subject to inflammatory diseases and fevers, which sooner terminate in typhus, are more frequently followed by dropsy, jaundice, chronic disorders of the viscera and of the nervous system, or a slower recovery, than in more elevated, arctic and dry exposures. Tertians and fevers generally become obstinate, and degenerate into typhus, particularly in autumn and spring, when cold and humidity are united in the highest degree, and in those whose systems are defective in tone from premature or advancing age, from intemperance, poverty, or any debilitating cause. In latitudes and situations where the vicissitudes of the atmosphere are great, insanity is supposed to occur more frequently; a circumstance perhaps more properly referred to moral causes, which have been particularly observed in the highly civilized communities, which occupy those latitudes where the changes of the air are sudden. In hot and moist situations and seasons, the prevailing diseases are malignant, pestilential, and deadly; bilious fevers, cholera, colic, dysentery, diseases of the liver and spleen, succeeded by various and protracted forms of debility, by atrophy, consumption, hypochondria, palsy, syncope, jaundice, dropsy or obstructions of the viscera, occur; and when moisture is excessively prevalent, the lowlands, which were formerly the extensive seats of vegetable putrefaction, are covered with water, and become healthy, whilst the dysentery and fevers occupy the hills and more elevated country, which in dry seasons were entirely free from disease. The summers of the north sometimes, of the south generally, exhibit the diseases produced by this combination of causes. The cold banishes them from the higher, and mitigates them in the lower latitudes. Heat and dryness raise the tone of the system; under their influence, the diseases of summer become inflammatory; remittent bilious fevers, cholera, dysentery and colic, are common, but without the usual consequent debility and disorders of the viscera. On the southern exposure of mountains these causes are aggravated, and in a country whose surface is variously diversified, the dysentery is found to occupy its higher, and the remittents of the summer its lower ranges: Heat alone is a cause of disease; ophthalmia, epistaxis, fever, insanity, apoplexy, and gutta serena, are sometimes the effect of an intense sun; and cold often produces erysipelas, ophthalmia, and when excessive, insanity; cold drinks have produced nephritis, gastritis, bilious colics, fever, and in the predisposed by former habits, gout. In making a comparative estimate of the diseases of the United States and Europe, arising from situation and changes of the air, let it be recollected, that the effects of the east winds in Europe correspond with those of

the west in the United States, and those which blow from the south, in both continents, have nearly the same character. Moral causes are no less extensive in their agency. Religion and law, by encouraging virtue and industry, by repressing indolence and vice, have a direct effect upon the diseases of every community. Cities, towns and villages, according to their extent and the habits of the people, become frequent resorts of disease from defect of ventilation, from uncleanliness and poverty; circumstances immediately referrible to moral causes. Prisons, alms-houses, hospitals, barracks, manufactories and ships, where great numbers of people are assembled, are also the seats of many maladies. The banks of rivers, exposed, by the recession of the tide, to the sun; close, narrow and filthy streets, vegetable and animal remains in a state of putrefaction, unite to render cities unhealthy, particularly in the summer and in southern latitudes. Watching and study, and the more violent passions, predispose to the various species of fever, in situations favourable to their generation, and are often the original causes of phrenitis, insanity, apoplexy, epilepsy, syncope, chorea, palsy, hysteria, hypochondria, dyspepsia, atrophy, consumption, gout, and occasionally gutta serena. Indolence and sedentary habits render women more susceptible of fluor albus, amenorrhœa, hysteria; the men of hypochondria, and produce in both sexes mania, consumption, hæmorrhoids, obesity and apoplexy. Intemperance predisposes to the ordinary fevers, and is the direct cause of the various species of nervous debility, of palsy, hysteria, and hypochondria; dyspepsia, gout, atrophy, consumption, diabetes and dropsy, are also its consequences. The accidents of life greatly increase the catalogue of diseases in highly civilized communities. The various fractures and local injuries, the result of violence; the inflammations which are produced by mechanical and chemical causes, in manufactories and the diversified employments of extensive societies; the deformities of structure, multiplying difficult labours among women, and chronic diseases, in both sexes, which arise from habits of luxury, confinement, poverty, and vice, must be comparatively rare in a sparse population. Those maladies, also, which are hereditary or contagious, and their consequent affections, extend more widely in thickly settled countries: thus syphilis, as a cause of predisposition to rickets, scrofula, and other disorders; rickets as producing hydrocephalus; scrofula, as the cause of the same disease, as also of atrophy among children, and consumption among adults, must be comparatively limited in America; where climate and exposure have a more extensive effect than population or moral causes in producing disease: accordingly, the following sketch, with

the application of these general remarks, will exhibit the medical topography of its various districts.

In the north, acute and chronic inflammations, more particularly catarrhs, quinsies, pleurisies, consumptions and rheumatisms, continued and intermittent fevers, occur; in the south, malignant and bilious fevers of various types, diseases of the liver, inflammations and spasmodic affections of the alimentary canal; in the middle States, both, according to the season and exposure. The yellow fever visits the cities of the Atlantic coast in the summer, the typhus in the winter; increased by the evils and privations of poverty, sometimes inflammatory, epidemic and desolating, often sporadic and manageable, they personate the various forms of disease and even health, conducting the patient to the grave without a suspicion of his danger. In general, malignant and bilious fevers appear in summer and the beginning of autumn, inflammatory and typhous affections in the winter and spring of all latitudes. The eruptive fevers occur at the interval of three or four years. Vaccination is general; variola, subdued as far as the prejudices of ignorance and poverty will permit, sometimes appears in the cities; varicella, scarlet fever, measles, erysipelas, have nothing peculiar; the plague is unknown; the miliary fever and pemphigus are seldom seen; cholera frequent among children, more rare among adults, aphtha, colic, diarrhœa, dysentery, appear in summer; the latter, sometimes epidemic, and in situations generally healthy, and appearing on the hills and more elevated country, when remittent fevers are seen in the valleys, is often extremely mortal. Urticaria appears in the adolescent, seldom in those of mature age.—The various species of hæmorrhage exist here, as in Europe, and are known in all districts,—that from the lungs, the harbinger of consumption, the endemic of the northern and middle regions, is comparatively rare in the south. The diseases peculiar to females, and those which result from the relations of the sexes, are more rare than in Europe, from the prevalence of early marriages, and the moral character of the people.

Apoplexy, palsy, and the various species of nervous debility, are often produced by intemperance, particularly in the south and west, as also in the cities, and destroy the aged towards the conclusion of summer and winter;—active in our habits, with few men of leisure and overgrown wealth, hypochondria is more rare in the United States than in Europe.—Tetanus sometimes occurs in summer, seldom in winter; in the middle States it is dangerous to receive a lacerated or a punctured wound during the warm season, without the use of local and stimulating applications; in the south, it occurs from

wounds, as well as exposure to the night air.—Tympanitis is seen,—epilepsy, chorea, syncope, and hysteria, are believed to occur less frequently here than in Europe; asthma, pertussis, and hydrophobia have nothing peculiar,—indigestion and the gout, often the result of intemperance, are not unfrequent in the southern districts of the country, or in the cities of the Atlantic coast. In the north, the people, contending with the difficulties arising from a dense population, with minds highly tempered by devotion, are subject to mania, from reverses of fortune, and the effects of religion. The same causes are rendered more powerful in the southern and middle States by a more ardent temperament, and more luxurious habits. There religion, vibrating between the extremes of enthusiasm and licentiousness, often passes like a contagion among the people, and developes in extensive assemblies, excited by the fervor of public worship, the diseases of the nervous system. Mania, more frequent among men than women, is less common here than in Europe, from the moral character of the people, and the mildness of our policy. Older nations, burdened with the machinery of power in its most complex and elaborated state, liable to the great succussions and agitations of the moral world, produce in hospitals, almshouses, and cities, in fleets, in armies, barracks and other great assemblages of people, the most debilitating and exhausting vices of the race; or overspread whole districts with war, famine, pestilence, and the various evils which attend the great contentions of pride among the monarchs of the earth; giving origin in an extensive manner to the diseases of the mind, and every species of nervous debility. The various forms of dropsy are less frequent than formerly: more manageable where the constitution is not absolutely broken, they are confined to the aged, the poor, and the intemperate, or are the result of other diseases.—Goitre is endemic in various situations, and cretinism is sometimes seen—rickets occur, though rarely, among the children of the negroes—the scurvy is unfrequent—jaundice is sometimes known—scrofula is more common, occurring in glandular swellings, and in ulcers with caries—psora is confined to the poor, and incurable cases of herpes sometimes occur. All diseases arising from uncleanliness, or from unwholesome diet, are less frequent in this country than in the old world, from the greater abundance of provisions, and the superior habits of the lower classes; with perhaps the exception of those which proceed from intemperance, which, in America, certainly prevails to a disgraceful extent. The appearance of surgical diseases is regulated, as in Europe, by the occupations of society, by the accidents of life, the decay of nature, or the peculiar susceptibilities of the system: com-

posed of nearly ten millions of people, scattered over an extensive territory, actively engaged in agriculture, with manufactures little advanced, our cities, army, and navy small, the apparatus of national power only partially developed, the affections produced by accident, by sedentary, luxurious, confined or vicious modes of life, must be comparatively rare. The ocean, great rivers, marshes, highlands, mountainous regions or extensive plains, diversify the character of disease, according to the principles already detailed; epidemics, for a time phlogistic or typhous in their temperament, occasionally desolate districts long blessed with health; some situations are always afflicted; others, in all seasons and in all years, are undisturbed by any prevailing malady.

The duties of the profession are performed by Physicians, Surgeons, Accoucheurs, and Apothecaries; in the country the different branches are united; in the cities they begin to separate. In the north, the profession is not well rewarded; in the middle States it connects the law and divinity with the other occupations of society; in the south it is more distinguished, and partakes in all districts of the prevailing character of the people. In the north, more learned, moral, and judicious, the Physicians incline to the practical duties of religion; in the south, frank, open, and gentlemanly, regulated rather by honour than by more stable principles; in the middle States they bear a character between these extremes.|— In general the Profession has been supposed to incline to scepticism. The constant intrusions of business, the influence of medical theory, sometimes openly inculcating materialism, the contemplation of physical phenomena, apart from the influence of mind, or the great relations of the moral world, estrange the Profession from the duties of religion, and expose it, too often with apparent justice, to the charge of infidelity. The Physicians of the country instruct their pupils in the practice of medicine, therapeutics, and the business of the Apothecary. Collecting from every quarter of the United States, they complete their education at the universities, by the study of anatomy, medicine, surgery, midwifery, therapeutics and chemistry. Collateral branches are sometimes added: in general, medicine, anatomy, and surgery, are considered as indispensable. Societies are formed in most of the States to improve the science, promote emulation, or regulate the practice. From the extent of the libraries, hospitals, almshouses, and the facilities of prosecuting anatomy, the universities are generally placed in the cities of the Atlantic coast; already New Hampshire, Rhode Island, Massachusetts, New-York, Pennsylvania, Maryland, Virginia, Kentucky and Ohio, have founded medical institutions; of these,

the University of Pennsylvania is the most distinguished. Supported by a long-established reputation, by the ability of its Professors, by the celebrity of the Pennsylvanian Hospital, and its library, by anatomical collections, a great museum of natural history, and the infirmary connected with the alms-houses, its pre-eminence is founded on extensive advantages. The results of American Medicine, consisting principally of practical details and descriptions of natural history, are recorded in the transactions of philosophical societies, in elementary and periodical works, essays, and lectures. In this extensive suburb of the scientific world, the period for its full display has not yet arrived. It is only in those ages of the progress of nations, when agriculture, manufactures, and commerce have accumulated immense wealth, and extended the reign of luxury; when famine, pestilence, and war have multiplied the causes of death, that medicine, established upon the mineral, the vegetable, and the animal kingdoms, unites with other more distinguished sciences, to give dignity and effect to the purposes of power, by discovering, from an enlarged survey of nature, the means of alleviating the pains, increasing the comforts, or extending the pleasures of life.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

[We hope our friend Dr. Yelloly will pardon our publishing the following private letter; since, did it not appear, there would be a manifest inconsistency in publishing his communication *after* that of Dr. Prout.]

Carrow Abbey, Norwich, July 15, 1821.

Dear Sir,—I observe in the last Number of the Medical Repository, that a letter from Dr. Prout is inserted from the Annals of Philosophy, in answer to one which I addressed to the Editor of the same journal. As I am sure you will agree with me in thinking, that your readers cannot form an adequate opinion as to the existence of the inaccuracy which I ventured to point out in Dr. Prout's work, unless they see the communication in which it was stated, as well as the reply, I request you to give a place, in your next Number, to my letter, inserted in the Annals of Philosophy for May last, and intitled, "Observations on Dr. Prout's* Estimate of Mortality from the Operation of Lithotomy."

I remain, dear Sir, yours sincerely,

J. YELLOLY.

* Another slight inaccuracy occurs in the estimate of the mortality of the Bristol tables, quoted by Dr. Prout, from the 11th volume of the Medico-Chirurgical Transactions, and from a similar cause, viz. that of his having divided the *sum of the proportions* by the *number of proportions*, in

Dear Sir,—I beg to notice, through the Annals of Philosophy, an inaccuracy into which Dr. Prout has inadvertently fallen, in the statement which he has given, in his valuable work on the Diseases of the Urine*, of the mortality occurring in the operation of lithotomy, in the Norfolk and Norwich Hospital; and in the deduction which he has made, as to the mean ratio of mortality from that operation, over the whole kingdom.

Dr. Prout quotes Dr. Marcet's published account of the cases which occurred in the Norfolk and Norwich Hospitals up to 1816†, and infers, that as the mortality which took place in individuals below puberty, was one in eighteen, while that in adults was one in four and three-fourths, the mortality of the whole must be one in eleven and three-eighths, or the mean between the two proportions.

It is obvious, however, that this calculation could only be correct, if the number of deaths at those two respective periods were equal; but as this is not the case, the mean ratio can only be obtained, by dividing the whole number of cases by the whole number of deaths, which Dr. Marcet does, and thus gives the mortality as one in seven and one-fourth, the deaths being 70 in 506 cases.

Taking this as the accurate proportion of deaths in the Norfolk and Norwich Hospitals, up to the year 1816, (which, from my own inspection, I can state to be the case,) the proportional mortality, from the operation of lithotomy in the whole kingdom, as inferred by Dr. Prout, from the mean of that in the Bristol, Leeds, and Norwich Hospitals, will be about one in six and one-half, instead of one in seven and three-fourths, which he states it to be.

I remain, dear Sir, yours sincerely,

J. YELLOLY.

[In the admission of papers into the Repository, the Editors, it will have been seen, have been guided by the utmost latitude of impartiality. In some cases they totally disagree with the writers; in others, their sentiments on controverted points are much more mild and modified than those of the respective controversialists; while, in reference to other subjects, they are altogether incompetent to form an opinion from want of either *pro or con* evidence. How far such indiscriminate insertion of communications has been proper or otherwise, may, perhaps, admit of a question; but it will be allowed by those even who are the least inclined to justify this editorial laxity, that at any rate a thorough exemption from party feelings has ever characterized the conduct of the Repository; and it is in consistency with a determination to preserve the character of impartiality, that the following correspondence, sent for insertion, is printed. The Editors, (or Editor rather, for in this case it is the act of one,) must, however, be allowed to say, that, as far as the nature of the examinations adverted to in the following papers is concerned, they have been reported by the majority of candidates with whom he has conversed, as perfectly fair and proper; and, in proportion to the intelligence and information of his young informants, has he

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order to find the average mortality from the operation of Lithotomy; instead of dividing *the sum of the cases* by the *number of deaths*. It will readily be seen, therefore, that the mortality, from that operation, of the Norwich, Leeds, and Bristol Infirmaries, is, respectively, as one in seven and one-fourth, (or 70 in 506); one in seven and one-28th, (or 28 in 197); and one in four and a half, (or 79 in 354); instead of one in eleven and three-eighths, one in seven and four-fifths, and one in four and one-fourth; and that the average mortality of those three hospitals is rather more than I have stated it to be in my letter to the Editor of the Annals of Philosophy.

* Page 218. † Marcet on Calculous Disorders, p. 26.

generally found an accompanying disposition to speak well of the inquest in question. Of his own knowledge, as the lawyers say, he of course knows nothing about the matter, but he has thought it but a bare act of justice to say what he has said upon the testimony of others.]

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

GENTLEMEN,—The beneficial influence the Apothecaries' Act seems likely to have on the practice of medicine, by preventing the intrusion of unqualified persons, renders it of consequence that it should be generally known how far this principal object is attained by it; and if you think with me, and with every one to whom I have mentioned the business, that the following correspondence deserves to be laid before the public, I shall feel obliged by its early insertion in the REPOSITORY. It was once my intention to publish it without comment or remark, but the conduct of the Society of Apothecaries has been so extraordinary, that I trust you will oblige me by introducing the observations I shall make in form of notes, at the foot of the page, so that the continuity of the correspondence may not be interrupted.

In transcribing my own letters, I must apologise for not being able to pledge myself for their perfect correctness. I kept but very rough copies, and I fear that in some parts they may not be exactly verbatim. This, however, can be of no moment, for that their sense is the same I am positive. If it appear otherwise to the gentlemen to whom they were addressed, I will thank them for their corrections.

LETTER I.

To J. WATSON, *Esq. Secretary to the Society of Apothecaries.*

Rochdale, Dec. 28, 1818.

SIR,—As a certificated Apothecary, I claim the privilege of requesting your opinion and advice on the following case:—

A person, whose name is Howarth, who has had no medical education, has, within the last twelve months, began to practise in this town; first by compounding pills and powders, from his own prescriptions, to which he gave the name of "Family Pills," and "Worm Diamonds;" and now he not only prescribes and prepares medicines, but visits patients in every variety of complaint. The pills and powders are sold, without being licensed as quack medicines, and he by no means confines himself to their preparation and use.

Now, sir, if the gentlemen to whom certificates are granted at Apothecaries' Hall are not to be protected from characters of this description, I assure you the Apothecaries' Act will very soon be looked upon as a dead letter. Indeed the impression already made on the minds of the apprentices of this town, from Howarth's being allowed to practise unmolested, is, that it is an unnecessary waste of time and money to become a regularly qualified Apothecary. The case is one completely in point. He has commenced since August, 1815; he has served no apprenticeship; nor has he any certificate from Apothecaries' Hall, or diploma from any corporate body.

Under these circumstances, if the Society does not prosecute, it is certainly failing in duty towards its licentiates; and by thus neglecting their interests, and its own honour and reputation, will soon render itself ridiculous and contemptible. Innumerable offences could be proved against him; but as there is no intention of oppressing him, since it is probable that he is acting through ignorance, one proof only might be brought forward; and I pledge myself to do this if a prosecution be commenced. To show that I am actuated by no private motives, it may be right to state, that I have written this letter at the solicitation of all the medical men in

the town; and I am authorised to say that they agree with me in the propriety of laying the business before the public, if the Society does not exert the powers vested in it by act of parliament.

It will be considered an obligation if your earliest attention, and, if necessary, that of the court, be given to this subject, and I shall at all times be ready to communicate any further information the Society may require.

I have the honour to be, Sir,

Your obedient servant,

ABRAHAM WOOD,

Member of the Royal College of Surgeons, London.

LETTER II.

To J. WATSON, *Esq.*

SIR,—We have thought proper to trouble you with a further statement respecting Mr. Howarth, the individual on whose account one of us addressed you some months since.

Notwithstanding the letter*, which we find he has received from the Society of Apothecaries, he still continues to practise, and openly expresses his determination to do so in defiance of the act. His introduction into practice arose from his becoming servant to a *Dr.* Norton, a travelling quack, in April, 1817, with whom he remained about a month. During that time he found means to obtain the *Dr.'s* prescriptions, and immediately came to Rochdale, where he has resided ever since. He is now not more than twenty-two years of age, and ignorant and illiterate to the last degree.

About a week since a party of three of us waited on him, and warned him against exposing himself to the risk of a prosecution. This he has thought proper to disregard; and he seems to believe, in opposition to our repeated assurances to the contrary, that his possessing a license for the sale of quack medicines exempts him from the operations of the act. We are ready at all times to give every information that may be required, and to point out witnesses, should an action be commenced; and we again urge the propriety of this being done, that the licentiates may have that protection afforded them which they are taught to expect at the time of their examination.

We have the honour to be, Sir,

Your obedient servants,

(Signed) JAMES DUNLOP, M. D.
WALTER DUNLOP,
JOHN BUCKLEY,
ROBERT SUTCLIFFE,
JAMES OGDEN,
W. STANSFIELD,
A. WOOD.

Rochdale, June 20, 1819.

LETTER III.

To A. WOOD, *Esq. Surgeon, Rochdale.*

SIR,—In December last I received a letter from you concerning one "Howarth," who was practising as an Apothecary at Rochdale, and to whom

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* Conveying an intimation that, if he continued to practise, he would be prosecuted.

I wrote on the subject. I have never received any answer from him, and will thank you to inform me whether he continues to practise or not.

I am, Sir,

Your obedient humble servant,

Apothecaries' Hall, 25 Nov. 1819*. EDMUND BACOT, Secretary.

LETTER IV.

To E. Bacot, *Esq. Secretary to the Society of Apothecaries.*

Sir,—I have shown your letter, which I received this morning, to my friends, the medical gentlemen of this town; and I am requested to say that Howarth is still in practice: indeed it is notorious that he is now doing more business than at any former time. His example has had a very pernicious influence on this part of the country; as, from the length of time which has elapsed since you wrote to him, he imagines the business is set at rest, and affects to despise the powers of the Society.

A letter was addressed to Mr. Watson in June last, signed by seven of the eight medical men of this town, which, as you have not noticed, I am apprehensive has not been received. Three of us are members of the Associated Apothecaries of England and Wales, and two more will be proposed at their next meeting. It has been our intention to lay the correspondence before the Committee of the Association, in the hope that its interference would promote the object of our wishes. I therefore beg that you will inform us, as soon as possible, whether the Society means to prosecute.

I am, Sir,

Your obedient servant,

Rochdale, Nov. 27, 1819. A. WOOD.

LETTER V.

To John Powell, *Esq. Secretary to the Associated Apothecaries of England and Wales.*

Rochdale, June 15, 1820†.

Sir,—In the London Medical Repository, No. 67, is a statement of the rules of the Associated Apothecaries of England and Wales; and in section 2, article 3, it is declared to be one of the objects of the Asso-

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* The attention of the readers of the Repository is solicited to the date of this letter. At the time of my examination I recollect a most flourishing speech being made by one of the examiners about the advantages we should derive from being members, and a promise of protection against all unqualified persons was distinctly made to us. Now for the proof. A letter is addressed to the secretary, stating as strong a case as could be made out, and in eleven months he answers it, by inquiring if the individual is still in practice! Not that the secretary had been altogether idle during this time. He had written to an unprofessional gentleman in this town, to inquire, I suppose, into the truth of our statement; and from subsequent circumstances, which I shall mention in their proper place, I am compelled to believe that the secretary was desirous, before he commenced proceedings, of ascertaining whether, were this step taken, Howarth's effects would cover the expenses.

† The date of this letter shows the promptitude of the Society, and affords a capital illustration of its hundred-times told anxiety to protect its licentiates.

ciation, "To endeavour to prevent ignorant and unqualified persons from practising medicine, by watching over the operations of the Apothecaries' Act, and by communicating to the Society of Apothecaries all cases in which it shall be discovered that the regulations of that act shall have been infringed*." In furtherance of these views we beg leave to lay before you the following statement respecting one Howarth, now in practice here. He has been employed in a cotton factory in this neighbourhood from his childhood, and in the beginning of 1817 he became servant to a travelling quack, of the name of Norton. Leaving him in about a month, and having contrived to obtain the *Doctor's* prescriptions, he settled in Rochdale, where he has resided ever since. He began by compounding pills and powders, to which he gave the name of "Family Pills," and "Worm Diamonds;" and gradually extending his practice, he now visits patients, and prescribes for every variety of complaint.

We have conveyed this information to the secretary to the Society of Apothecaries, in two letters; the first in Dec. 1818, and the other in June, 1819; but we have been disappointed at finding, that though Howarth is still practising, in direct opposition to the 14th clause of the act, no proceeding whatever has been instituted by the Society, as it is "appointed and constituted, *directed*, and empowered" to do, in clause 7. A threatening letter has been sent to Howarth by the secretary; but as no further step has been taken, it has only served to render him more confident of the inability of the Society to prevent his continuing to practise; and as the natural consequence of this supineness, we have now to add that another individual has settled in this neighbourhood, who has returned from transportation within the last twelve months, and who can have no possible claim to the title of an Apothecary. This conduct of the Society of Apothecaries has the more surprised us, some of us being aware that professions of protection and support are most abundantly made to the candidates for certificates at Apothecaries' Hall; and candour compels us to say, that in not protecting its licentiates, the Society is failing in duty towards them, and abusing the privileges vested in it by act of parliament.

We have been induced to lay the case before you, sir, in the hope that by being presented to the attention of the Society of Apothecaries, through the respectable medium of the secretary to the Associated Apothecaries, it will obtain a more serious consideration than seems hitherto to have been bestowed upon it; and should this mode of communication experience the same neglect as the former, we are unanimous in the determination to submit the matter to the notice of the public, without further delays, in order that gentlemen, before becoming members of the Society of Apothecaries, may know what they have to expect from it.

We have the honour to be, Sir,

Your obedient servants,

JAMES DUNLOP, M. D.
W. DUNLOP,
J. BUCKLEY,
R. SUTCLIFFE,
J. OGDEN,
A. WOOD.

(Mr. Stansfield had left the town.)

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* This is all as clear as light; but I fear the world has yet to learn what success the Association has experienced in this laudable object. It is a maxim in law, that "what does not appear does not exist."

LETTER VI.

To Messrs. DUNLOP, *&c. &c.*

June 20, 1820.

GENTLEMEN,—I was favoured with your letter June 17th, and on Saturday, June 18th, it was laid before the London General Committee. I was accordingly directed to inclose it to Mr. Bacot, the clerk of the Society of Apothecaries, and to require of him a reply, which it was hoped would be satisfactory to you, and enable the Committee to state generally to the profession, at the annual meeting of to-morrow, June 21st, a satisfactory explanation, how it has appeared to some individuals the Society of Apothecaries has not, in every instance of illegal practice that has been transmitted to them, commenced an immediate prosecution against the offending party. I have this moment received Mr. Bacot's answer, a copy of which I herewith inclose, which will, I trust, fully answer your expectations, and enable you to furnish Mr. Bacot with the full evidence he requires.

I have the honour to be, &c.

JOHN POWELL,
Secretary to the Associated Apothecaries, and
Surgeon-Apothecaries, of England and Wales.

To J. POWELL, *Esq.*

(COPY.)

Apothecaries' Hall, 19th June, 1820.

DEAR SIR,—I beg to acknowledge the receipt of your letter of the 18th, and to say in reply, that the great difficulty which lies in the way of enforcing the provisions of the act of parliament for better regulating the practice of Apothecaries, &c. is the facility with which a person, of whose origin no certain evidence has been procured, can bring forward persons to swear that he *has* attended them as an Apothecary, and has been paid for such attendance previously to the 1st of August, 1815.

By the late decision, in the case of Warburton, it appears to be the opinion of the judges, that no man can be considered as having been in practice as an Apothecary, within the meaning of the act, whose education was not sufficient to enable him to read and compound the prescriptions of Physicians. By the letter sent with yours, it appears that Howarth did not *commence* operations as an *Apothecary*, but only as a vender of medicine, which was bought and applied, without his directions, by the patients; and if he had gone no further than this, I doubt whether he could have been taken notice of; as it appears to me that acting in that way is only acting as a druggist*. But the gentlemen say that Howarth *now* visits and prescribes for patients; and if in addition to doing this he supplies medicines, I conceive that he comes under the denomination of an Apothecary, and is liable to the penalty imposed by the act, for acting without being qualified.

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* Mr. Bacot's ideas of the distinction between a druggist and an Apothecary, seem exceedingly confused. If a man describe his complaints, and receive medicines for them, is not the person who gives them to him prescribing and dispensing? The distinction is easily made in this manner: if a person ask for two ounces of paregoric, a druggist is perfectly right in giving it to him; but if he ask for something for a cough, and he gives him paregoric, or any other medicine, no matter whether compounded or not, he is to all intents and purposes prescribing and dispensing, and is amenable to the act. Now it is absurd to suppose that H.'s patients asked him for the drugs; they must have asked for medicines for worms.

The Society of Apothecaries are, in every case which admits of its being done, anxious to enforce the act of parliament, but they are, at the same time, very cautious, in this early stage, of being defeated upon any grounds; because, if such were to be the case, it would be spread most rapidly that a defeat had taken place; but the reason of it would not be spread with it, although it might happen that the want of success was owing merely to having attacked a person who was exempt from the provisions of the act. The consequence of such an event would be, that a belief would gain ground that the act of parliament was incapable of being enforced, and a corresponding increase in the number of unqualified practitioners, who would then suppose that every check was removed at once *. As a general rule, in order to enable the Society to take proceedings, I conceive that evidence should be laid before them on the following points, (stating the names and residences of the witnesses,) viz.

First; To prove the situation in life of the party complained of, previously to, and on the 1st of August, 1815, in order to show that it is highly improbable that he could have been in practice as an Apothecary previously to passing the act. It is true that it cannot be *proved* that a man has *not* followed a certain profession, but it may be rendered highly improbable; and unless evidence of the strongest nature was produced by him to prove the affirmative, I think a jury would incline against a person in such situation.

Second; To prove his education and information, and general incapability. This is to be done much easier; for, if any one takes a prescription to him which he is incapable of reading, it is pretty clear that he could not have done so five years ago.

Third; That the person is now in practice as an Apothecary, by visiting patients, prescribing and administering medicines, and charging for them. This will be proved in part by producing bills delivered by him.

These are the general heads of evidence which occur to me at present as necessary, and will most commonly be sufficient; but every case *may* require its own peculiar additional evidence. If such evidence can be procured in this case, I think the Society will be inclined to take proceedings.

I am, dear Sir,

Your obedient humble servant,

EDMUND BACOT.

LETTER VII.

To J. Powell, *Esq.*

Sir,—I am desired by the gentlemen who signed the letter I had the honour of addressing to you, to express their thanks for the trouble you took in laying it before the secretary to the Society of Apothecaries, and in afterwards favouring us with your and Mr. Bacot's replies to it.

We have now obtained every kind of evidence Mr. B. points out as necessary, viz.

First; We prove his situation in life on August 1, 1815, by a certificate from Messrs. Holmes and Co., cotton-spinners, in this town; stating that Howarth left their service July 3, 1816. He had been employed by them from his childhood, when he only received 2s. a week.

Second; Want of education and general incapability is evident enough from some manuscript advertisements of his in my possession, which, for

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* Logic! So, if a murderer escaped hanging, from whatever cause, we might all expect to have our throats cut forthwith. Q. E. D.

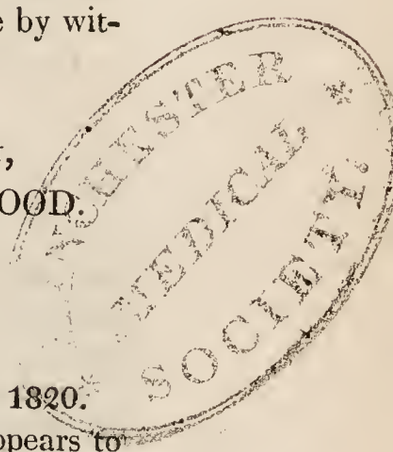
penmanship and orthography, are really laughable. I have sent a prescription to him, and he did not seem to have the most distant apprehension of its meaning.

Third; To prove his being now in practice. This is not so easy as I expected. He evidently endeavours to conceal his practice, and never writes bills when he can avoid it. I have, however, by sending a person, (whom I instructed to insist on having a bill,) obtained one; and I have, by the same means, got two parcels of medicine, with written directions how they are to be taken. Now, if the Society of Apothecaries has no objections to witnesses who have been sent purposely to make evidence, I can procure plenty in a few days; and of this I should like to be immediately informed. There appear to me no valid objections to them, since the only purpose witnesses could serve would be to prove that he dispensed medicines; and this would, of course, be as effectually done by witnesses of this description as by any others.

I am, Sir,

Your obedient and obliged servant,

Rochdale, Aug. 7, 1820. A. WOOD.



LETTER VIII.

To A. Wood, *Esq.*

Apothecaries' Hall, 30th Aug. 1820.

Sir,—Mr. Powell sent me a copy of your letter to him. It appears to be satisfactory, except in the latter part of the evidence, which relates to the proof of his present practice. The Society are of opinion that it would not be respectable or correct to adduce evidence in the manner specified in your letter, and wish that it may be possible to procure regular evidence. If this can be done, I shall be glad to hear further from you.

I am, Sir,

Your obedient servant,

EDMUND BACOT.

LETTER IX.

To E. Bacot, *Esq.*

Sir,—In compliance with the request contained in your letter to me, dated August 30, I have obtained the following evidence of Howarth's being still in practice.

[Here follow the names and residences of seven persons, to whom he had prescribed and dispensed medicines; but as I shall have occasion to state the case more fully in another place, I defer it for the present.]

Encouraged by H.'s success, which has been considerable, a man of the name of Holt has commenced business on the same plan*. We can prove that, within the last twelve months, he was employed in a factory.

I trust the evidence I have procured will be satisfactory to Mr. Bacot; and, if not, I can easily double or treble the number of cases, though I feel some reluctance at examining people on the subject, as I am aware that whatever consequences result will be attributed to my interference.

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* This is not related as having any bearing on Howarth's case, but to show the consequences of his being permitted to practise. Holt has left Rochdale, and settled in a neighbouring village, where he practises medicine, surgery, and midwifery.

I come now to mention a case of some delicacy. A Mr. A. B.* has lately settled in this town, and is now in considerable practice. I know that he was rejected at Apothecaries' Hall on the 13th of last January; and though he has been in town since, I have strong reasons for believing that he has not yet passed. A gentleman was kind enough to call at Apothecaries' Hall, at my request, to inquire whether he had or had not passed; and I am astonished at his receiving for answer, that "a rejection did not absolutely imply a want of qualification to practise, as the court sometimes gave permission to gentlemen to go down and practise, under a promise to come up again †." I beg to be particularly informed on this head; since, if it be true, the operations of the act will, by this measure, be easily and effectually evaded.

I am, Sir,
Your obedient servant,
A. WOOD.

Rochdale, October, 1820.

LETTER X‡.

To A. Wood, *Esq.*

Apothecaries' Hall, 20th Nov. 1820.

Sir,—I trust that you will not attribute the inquiries which I am about to make, concerning Mr. Howarth, to any wish to throw difficulties in the way of preventing his practice; but to a wish only of having such grounds to proceed on as will support the case. I should much like to know what diseases the several persons, whom you mention as having had medicines, and paid for them, laboured under at the time; and whether the medicines so furnished were adapted to their peculiar cases, or only medicines kept ready for the mass of patients who might call for advice, and given to these persons without any particular prescription of them to each individual's disease. I should likewise be glad to know, whether these persons can be easily got at when wanted, as witnesses to prove that H. did prescribe and furnish medicines for them, and received payment, which is a most material thing, as without producing them, or some of them, we should be beat certainly.

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* It will be seen that A. B. is anonymous. (His real name was conveyed to Mr. B.). As no steps have been taken to prevent Howarth's practising, I do not see that I am called upon, in this place, to hold up any gentleman to public contempt and derision. Had the Society done its duty, the case would have been very different; and however painful it might have been to my feelings, I should not have flinched from performing my part in preventing the intrusion into the profession of such characters as Mr. A. B. He is still in practice here.

† I shall not be singular in my surprise at this piece of intelligence. A promise to come up again! Is there any limitation of the time when this promise shall be performed? And in which of the clauses of this money-collecting act is any thing said of "permission?" The clause expressly says, that a penalty of 20*l.* will be incurred by practising without a certificate; and another, that if a candidate be rejected, he may apply again in six months; but not one word of practising in the interim. This "permission" implies such a palpable absurdity, so gross an abuse of power, and is so glaringly inconsistent with the intentions of the act, that I almost regret the trouble I have taken in writing this note upon it. Its own merits would form its most certain passport to the contempt of the profession.

‡ I wrote a letter to Mr. B. between No. 9 and 10, of which I have no copy. It merely repeated the information contained in No. 9, and stated that a workman could substantiate the witness's evidence.

I should like also to have an account, from Mr. Holmes's acquaintance with him, taken down from himself, and to know whether Mr. H. is to be easily found, if wanted, to prove it on the trial; or, rather, whether he would have any objection to doing so, as I do not suspect Mr. H. of being a person who could not be found. Perhaps, also, his foreman, or some of the workmen in the factory, could corroborate this fact. Does Howarth keep a shop and medicines, and make up his medicines, suited to each case; or only a ready made stock for all diseases?

I hope you will excuse this additional trouble, and favour me with an answer at your convenience.

I am, Sir, your obedient servant,
E. BACOT.

LETTER XI.

To E. Bacot, *Esq.*

Sir,—In your first question, as to what diseases the several persons laboured under, and whether the medicines furnished were adapted to their peculiar cases, I refer you to my last. In Charles Brookes's case, I have stated that a paper of salts and a box of pills were prescribed for gonorrhœa. G. Robinshaw had powders, lotion, and ointment, for an eruptive disorder. C. Brearley's wife had pills, powders, and herbs. The others had all pills and lotions; whether composed of the same ingredients or not I cannot say. He keeps a shop, and has two boards, in different streets, to direct people to it. How he keeps his medicines I do not know, nor can I perceive how this can affect the question.

Mr. Holmes's evidence is this:—He recollects Howarth from a boy; and that he has been in his employment ever since, up to July 3, 1816; and to set this question at rest, Reuben Harrison, who has regularly paid the wages of the workpeople, can prove it from his own writing in the books.

I am, Sir, your obedient servant,
A. WOOD.

LETTER XII.

To A. Wood, *Esq.*

Apothecaries' Hall, Dec. 8, 1820.

Sir,—I have submitted the case of Howarth to the Committee of the Society: and now beg to say, that they are of opinion that proceedings should be instituted against him, of which I shall immediately inform him. [Some technical questions, of no importance, are then introduced.]

With regard to A. B., I shall write to him, to acquaint him, that he must give up practice, or that I shall commence proceedings against him; and if you can send me a few cases where he has attended, &c. I shall feel obliged.

I am, Sir, your obedient servant,
E. BACOT*.

LETTER XIII.

To A. Wood, *Esq.*

Apothecaries' Hall, Dec. 18, 1820.

Sir,—I wish to be informed whether you know any respectable, clever

* There was a letter of mine, between No. 12 and 13, stating cases A. B. had attended.

person, at Rochdale, who will act, in regard to Howarth, for me, in seeing witnesses and taking their evidence, &c., (I mean an Attorney), as it will be necessary that I should have correspondence with some person in the profession. I have not had any answer from Howarth yet.

In regard to A. B., if I proceed, which I think is likely, I shall want the names of his patients, &c. He wrote to me to say, that he was to come up in March, which I answered, by telling him, in the mean time, he must not practise.

I am, Sir, your obedient servant,
E. BACOT.

I pointed out Mr. Kershaw, Solicitor, of Rochdale, as a proper person for Mr. Bacot to correspond with; and Mr. B. wrote to him on Dec. 26, 1820, requesting him to wait on the patients, and take their depositions. This is the evidence, as taken by Mr. Kershaw's clerk, and immediately sent to Mr. Bacot:—

EXAMINATIONS, TAKEN 29TH DEC. 1820.

1. Ellen Moorhouse, wife of Richard Moorhouse, of Rochdale, in the County of Lancaster, butcher, says:—That she had frequently heard Doctor Howarth recommended for curing worms; and being much troubled with them in the latter end of last summer, she sent for him, and requested the person sent to inform the doctor of her disorder; when *he came down and advised with her*, and recommended some of his cakes (boluses) and pills, which she afterwards took, and received benefit from them; does not now recollect whether he brought the medicines, or she sent for them; but they were paid for at the time; nor does she recollect what he charged *; that the *doctor has often called at the shop, and asked her how she was*, and advised her to take some more of his medicines.

2. Judith Hartley, wife of Richard Hartley, of Chamber-house, in the parish of Rochdale, farmer, states, That she was very much indisposed in the early part of last August, and Doctor Howarth having left one of his papers, and seeing him go past, she sent for him in, and after *consulting* with him, he said her disorder was the worms, and having medicine with him, left her a quantity of pills and worm cakes, for which she then paid him 3*s.* 6*d.*; Howarth said, at the time, if they did her good she must pay 6*d.* more. After taking two doses he *called again*, being about three or four days from the time she first had the medicines from him, when he advised her to take the remainder; but which she declined, as she thought they did her no good; since which time the doctor has not called at her house.

3. Mary Whitworth, single woman, lives at Benjamin Greenwood's, Chamber-house, aforesaid. [The evidence of this witness is the same as in the last case. Benjamin Greenwood paid 3*s.* 6*d.* for the medicine at the time of receiving it.]

4. Benjamin Greenwood, above-mentioned, states, That as he was standing at his door, Dr. Howarth stopped and asked him if the young woman (meaning the preceding witness), had taken any of her medicines? (this being the day after he had left them), and on his calling again, in three or four days, to see Mary Whitworth, he, the witness, *consulted him with respect to a pain he had in his breast*, which had been very violent the preceding night, when the doctor said he had some pills, which he called a

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* When Mrs. Moorhouse made this deposition, she was exceedingly afraid of being obliged to go to Lancaster, and gave her evidence very unwillingly. She had previously told me, and I had informed Mr. Bacot, that she paid 4*s.* 6*d.* for the medicines at the time of receiving them; and that it was in September. Had Mrs. M. been deposing on oath, her evidence would have been much more satisfactory.

family pill, that he thought would relieve him; and he accordingly left him a box, for which he charged 6*d.*, and was then paid by Greenwood. Has often met the doctor since, who generally inquired how he was, and if Mary Butterworth remained well.

5. Charles Brookes, School-lane, Rochdale, hawker, says, That having the venereal in the latter end of last July, he went to *consult* Dr. Howarth, who said he could cure him, and desired that he, witness, would step up in the evening, and he would *make him up** some pills and salts, which he accordingly fetched at night, and paid him 3*s.* 6*d.* After taking the medicine, he again went up and told the doctor the stuff had done him no good.

6. Sarah Brookes, wife of Benjamin Brookes, of School-lane, shopkeeper, having often heard Dr. Howarth spoken of, as being able to cure worms, and being much troubled with them, she went to see him in the latter part of last summer, (but cannot call to mind the month), and he advised her to take some of his pills and worm cakes; after taking a part of them, she sent him word how she was. *Dr. H. has frequently called to see her;* and she has had a second parcel of medicines of him, but does not recollect the time; does not now recollect what he charged; but, whatever it was, he was paid when the medicines were received.

EXAMINATIONS, TAKEN 30TH DEC. 1820.

7. George Robinshaw, of Lowerfold, in the township of Spotland, and parish of Rochdale, farmer, says, That he was troubled with an eruption, or scurvy, about two or three months back, and shortly after, Dr. Howarth left one of his papers. He called again for it, and *had some discourse with witness*, when he, Howarth, said *he would make him up some powders* to take, and a box of ointment to apply to the place broken out; which the doctor accordingly left the next morning, and was paid for same 1*s.* 6*d.*; and he then stated that he, Robinshaw, must have a bottle to rub his leg with; which he also left the next day, and charged 8*d.* for it, which he was then paid; does not recollect that the doctor has called again.

8. Sarah Brearley, wife of Charles Brearley, of Lowerfold, aforesaid, states, That, in the early part of last September, Howarth left one of his papers with her; and, upon reading over the same, she thought he might do her good, as she was then very unwell; and, on his calling again for his paper a day or two after, which was on the Friday†, *she consulted with him*, when he stated that she was troubled with worms; and, on the following day, being Saturday, he left her some worm cakes, a box of pills, and some herbs to make into tea, for which she, at the same time, paid him 2*s.* In a few weeks after, he called to learn how the medicines had answered; since which time he has not called.

9. Robert Harrison, of Shaw Clough, in Spotland, aforesaid, weaver,

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* It will be observed, that Mr. B. frequently inquires, (Letter 10), whether H. kept his medicines ready made up? How this can affect the question of his administering and dispensing I cannot see. In the preceding cases, he appears to have had them ready prepared; but in this it is evident the medicines were extemporaneously prescribed for a particular disease, which Mr. Bacot regards as the greater offence. I do not know, but I believe that no one possessing the slightest claims to common sense, could ever dream of making the distinction. Suppose H. had a dozen preparations, one of which was for worms, another for head-ach, &c. &c.; what wouldit avail him, in the event of a trial, that he did not prescribe for each individual's case, but merely recommended his pill or bolus? Case 7 is also one of extemporaneous prescription, as is Case 8, if, indeed, they may not all be considered so.

† In Cases 1, 2, 3, 4, 5, 7, 8, 9, the witnesses expressly say, that they *consulted* with Howarth. This fact seems to me quite sufficient, in whatever form he kept his medicines; and if not, I shall feel thankful to any one who will inform me what kind of practice the act *will* prevent.

says, That, last spring, being much afflicted with worms, he *went to Dr. H. for his advice,* who *made him up some pills and worm cakes,* and gave him some herbs, for which he paid 4*s.* at the doctor's own shop; and being again unwell, in the middle of last August, he *waited on the doctor, who advised* the same medicine as before, which he *waited for till the doctor made them up,* and paid him 2*s.* 9*d.* for the same; does not know that the doctor has called upon him.

This forms the evidence, and the readers of the Repository will judge for themselves, whether it were possible for more conclusive evidence to be produced. The cases were properly selected from a considerable number, as containing the most certain and indisputable proofs of Howarth's illegal practice. I had sent them to Mr. B. in Letter IX., but have omitted them in copying that letter, on account of the unnecessary space they would occupy in the Report. Mr. B. then proceeded to request me to point out an attorney, as the Society was of opinion that a prosecution should be commenced. I did so; and on the depositions being regularly taken, and the case very much strengthened thereby, without the slightest communication to me, or explanation to Mr. Kershaw, who had an opportunity of seeing Mr. Bacot, a short time after the depositions were sent, the whole proceeding is dropped. One little clue remains to guide us in detecting the motives of this otherwise most unaccountable business: the Society had discovered that Howarth was a poor man, and that, were a verdict against him obtained, his effects would not cover the expenses. The impression left on Mr. K.'s mind, from the short conversation he had with Mr. Bacot, is, that this is the reason of the proceedings being discontinued; and as no other was advanced, it must be looked upon as the only one.

How the Society will reconcile it to its own honour, and to the promises of protection regularly made to the candidates on examination* days, is, to me, a perfect mystery. The profits which the Society derives from examinations, (from July 31, 1817, to July 31, 1819, 432 certificates were

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* From my frequent mention of the examinations, it may be thought that I attach great importance to them. On the contrary, I regard them as the veriest farces ever acted. Elliston or Matthews would make a fortune by them. A sketch of my own may serve as a companion to that at the College of Surgeons, by Ignotus, in the Repository for last May. On first sitting down, I had a Physician's prescription given to me, with a request that I would read, and then translate it. Before I had uttered three words I was corrected for my pronunciation, by a gentleman, who, however minute may be his knowledge of pill-boxes and gallypots, is certainly not over-burthened with the "lore of old Rome." The awfulness of my situation will, I trust, be a sufficient apology to my friends for the implicit submission with which I endeavoured to imitate this gentleman's pronunciation; and I congratulate myself to this day at not biting off the end of my tongue in the attempt. It bore about the same resemblance to the language of the Roman Forum that the whinings and lispings of a Whitechapel buck do to that heard in the British House of Lords, in the days of Earl Chatham; but of consideration for the literary reputation of the "Land of Cockaigne," I shall make no further remarks on it.

The first part of this prescription was a powder of calomel and pulvis antimonialis; and when I had translated it, I was asked what I would give it in. From the emphatic manner in which the question was proposed, I conceived it one of vital consequence, and begun to reflect on the chemical agencies of the substances, lest decomposition should take place on its being mixed in any of the usual vehicles. I simply answered: "In any thing, Sir."—"Yes, Sir, but in what?"—"Oh, any thing, any thing."—"But in what, Sir?" he repeated, in a tone that sent all the horrors of rejection to my very heart. "Oh, Sir, oh, Sir, preserves, or ——"—"Thank you, Sir, a very good answer, a very good answer, indeed. Now, Sir, be pleased

granted for country practice, and 28 for city, for which would be paid £3015. 12*s*.) render it a matter of mere justice to the licentiates, that the provisions of the act should be enforced against every unqualified practitioner.

I am, Sir, your humble and obliged servant,

Rochdale, June 26, 1821. A. WOOD.

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to observe, were this powder mixed with a liquid, being of a ponderous nature, it would inevitably subside to the bottom of the vessel, and the patient would not get the whole of it. Always remember to administer powders in something thick." If this does not beat any thing in Joe Miller, I am no judge of a joke.

The next test of my abilities was the production of a box filled with drugs, and I was required to tell their names. This I did nobly; for the only thing doubtful was a piece of scammony, and a friend of mine, as I was going in, bawled in my ear, "If they show you any thing very black, say scammony." On the old principle of "giving the devil his due," I beg to recommend *this* department of the Society's *trade* to public encouragement. I am told they are very honourable and just dealing in it; and the drugs were certainly of the "best quality," and, I dare say, are "reasonably charged." I have often wondered what could be the object of this part of the examination; and if it be not for the benefit of such of the members as are incapable of reading a label, in the language of the worthy Dominie, "Of a verity I opine not."

"Well, Sir, what would you give in inflammation of the stomach?"—"Give, Sir! I would bleed."—"Yes, Sir, we know all *that;* but what would you give?"—"Why, Sir, till I had taken off the violence of the increased action, I would not give ———"—"Now, Sir, attend to me, and I will inform you of an excellent medicine in these cases; its effects are often wonderful."

"With ears erect, and lips apart,
"Like monument ————"

(As like as the Lady of the Lake I am certain.)

"In listening mood I seem'd to stand."

I say *seemed*, for my trepidation was such, that whether I sate or stood I have no kind of recollection.—"Well, Sir, the saline draught is, in these cases, a medicine of uncommon efficacy."—"In the state of effervescence," says a second examiner.—"With a few drops of tinc-tu-ra o-pi-i," added a third, in a tragedy tone and accent, that would have been a perfect study for Kean, when preparing himself for the last (generally called the mad) scenes in Lear.

I was then asked the number of the coats of the stomach; and in naming them, I enumerated one too few. On this, one of the examiners said, in a perfect fury, "Who was your teacher, Sir?"—"Mr. Abernethy, Sir."—"And does he not speak of a nervous coat?"—No, Sir; but he says something of the nerves of the stomach.—"Yes, Sir, and *knows* something."—"Yes, I knew there was a nervous coat." By the by, what have the Apothecaries to do with anatomy? It would have been so completely out of all "time, place, and circumstance," to have quoted Latin, or I might have repeated the painter's indignant exclamation to the cobbler, "Ne sutor ultra crepidam!"

"Well, Sir, what are the properties of squill?"—"Expectorant and diuretic, Sir."—"And what else, Sir?"—"I do not know, Sir."—"Squill, Sir, is a cathartic." I was instantly desired to retire. "Rejected," I said to myself, "by all that's nauseous!" In a few minutes I was recalled, and with about twenty more, complimented on having gone through a very respectable examination, in a speech that would have set Dr. Johnson's "solemn march of periods" at very humble distance. Out I issued—made!—finished!—an Apothecary!—a licensed Apothecary!—"Opiferque per orbem dicor!!!"

SIR WILLIAM ADAMS'S CLAIMS.

The SELECT COMMITTEE appointed to inquire into the Establishment of the Ophthalmic Hospital in the Regent's Park, and the Claims of Sir W. ADAMS upon the Public, have inquired into the matters referred to them, and have agreed to the following Report:—

WHATEVER may have been the origin of the Opthalmia in this country, that disorder appears to have been greatly increased in its prevalence, and aggravated in its severity, in consequence of the infection communicated by our troops upon their return from Egypt; and, in the years 1808 and 1809, while it appeared to be gaining ground among the general population of the country, its ravages in the army seem to have attracted the attention, and to have excited the alarms, of the Military Departments of the State.

Mr. Keate, the late Surgeon-general, in a letter addressed to the Secretary at War, on the 8th of August, 1808, says,

"Having fully satisfied myself of the contagious nature of the Opthalmia, I beg leave humbly to represent, that the evils already produced by the disease, and the much greater ones likely to ensue, deserve the immediate and most serious attention of his Royal Highness the Commander-in-Chief, and of yourself, to devise means not only for arresting its progress, but also, if possible, for exterminating it wholly from the army. For, until this be done, there can be no security against its being propagated so rapidly and extensively, as to endanger the public safety."

He further states,

"That the number of soldiers who have been rendered totally blind by this affection since its introduction in and from Egypt, exceeds at present one thousand."

And he adds,

"It is impossible not to entertain the most disquieting apprehensions respecting the future progress of the disorder."

And he concludes by stating,

"In such circumstances it seems to me that no pains or expense likely to be requisite for eradicating this contagion should be regarded as too great for that purpose; and I beg leave humbly to suggest for the determination of his Royal Highness and yourself, whether it might not be proper to refer the investigation of the best means of accomplishing this important object to a Board especially appointed for that purpose, and which Board may consist of such members, besides the members of the Army Medical Board, as may be deemed competent by their attainments and experience to so important an inquiry."

In a subsequent letter, dated 29th August, 1808, after making some further observations upon an instance of the extent to which the disorder was then spreading, he states,

"It will, I have no doubt, have great weight in the mind of his Royal Highness and yourself, to the considerations which I had the honour of submitting in my former letter, relative to the expediency of finding means, if possible, for the complete extirpation of the Ophthalmia."

On the 28th October, 1809, Dr. Vetch, then Staff Surgeon of the Ophthalmia Depôt at Bognor, (of whose knowledge and skill in the treatment of this complaint, the Committee are induced to think very highly from the evidence which they have received in the course of this investigation,) addressed a letter to Mr. Knight, then Inspector-general of Hospitals, in which there is the following passage:—

"I took occasion, some time back, to represent to you the alarming progress which the Ophthalmia was then making in the army, and I took the liberty of suggesting the necessity of adopting some other and more powerful means of prevention."

In the beginning of the year 1810, a Board was appointed, consisting of the three principal officers of the Army Medical Board, and of eight of the most distinguished civil practitioners in London; and their report, which contained some highly valuable suggestions, as to the most effectual means of preventing the disorder from spreading by communication from infected persons, and as to the best mode of treating it in its early and acute stages, was circulated in general orders, for the guidance and information of the medical officers of the army.

It does not appear, however, that this report contained any instructions as to the mode of treating the chronic or third stage of the Ophthalmia; nor did it direct the attention of those, for whose guidance it was prepared, to the existence or treatment of those effects, which the acute inflammation, in the earlier stages of the disorder, generally produces upon the membrane that lines the inner surface of the eye-lid.

In the beginning of 1810, and afterwards in 1812, Sir W. Adams tendered to the Military Departments, information as to the chronic or third stage of the disorder, and as to the mode of treating that stage, which he considered to be important, and at that time not generally known. In consequence of these communications from him, several out-pensioners of Chelsea Hospital, afflicted with blindness, were at different times placed under his care as subjects for experiment, as to the importance and efficacy of the practice which he recommended; and these communications and experiments ultimately led to the establishment of the Ophthalmic Hospital, at the head of which Sir William Adams was placed.

The objects of this institution have been stated to your Committee to have been three.

First, To diffuse, generally, among the surgeons of the army, the knowledge of the best modes of treating the chronic and third stage of the disorder.

Secondly, To diminish, if possible, the charge of the out-pensioners of Chelsea Hospital, by curing or relieving men who had received pensions for defective sight.

Thirdly, To check, in some degree, the annual augmentation of the pension list, by treating men about to be discharged for defective sight, and by thus diminishing their claim to pension, as far as it might be founded upon the impaired state of their vision.

Your Committee are of opinion that these objects were of sufficient importance to justify the steps which were taken for their attainment.

With respect to the first point, your Committee have the satisfaction to find, that this, which was the most important object, has been greatly promoted. The Ophthalmia having, upon the return of our troops from Egypt, become, comparatively speaking, a new disease in this country, its proper treatment was at first imperfectly understood. It appears, however, that the attention of the Medical Department of the army has, of late years, been most successfully directed to this subject, and that the best modes of treating all the different stages of the Ophthalmia are now well understood and practised in the army; and your Committee are satisfied, that the establishment of the Hospital, under Sir William Adams, has greatly contributed to promote this desirable object, not only by the direct opportunity it afforded of studying the various modes of practice, but indirectly, by the manner in which it appears to have excited the emulation and attention of other practitioners.

With respect to the second point, indeed, it has been stated, that valid doubts were suggested, how far it was in the power of the commissioners of Chelsea Hospital to take away, or diminish, any pension which they had granted under the provisions of the act of the 46 Geo. III.; and, consequently, your Committee have not thought it necessary to direct their

inquiries to this point, as no diminution of pensions already granted could, under any circumstances, have been effected.

With respect to the third point, as but a few men so circumstanced have been placed in the Hospital, it does not appear to your Committee, that Sir William Adams has had sufficient opportunity of showing how far he could have effected this object, upon the scale originally proposed. But the general diffusion of knowledge among the medical officers of the army, must necessarily lead to the accomplishment of this end.

With regard to the future continuance of this establishment, it has been stated to your Committee by the department with which it originated, that the main objects for which it was instituted having thus been attained, it does not appear that any public inconvenience would now arise from its discontinuance. In this opinion your Committee are disposed to concur, and they, therefore, recommend, that the establishment should be discontinued as soon as the proper arrangements can conveniently be effected.

Upon the claims of Sir William Adams upon the public, your Committee have to report, that he has rested those claims upon two grounds.

First, Upon his having been the means of promulgating to the army, and to the public, certain information as to the third or chronic stage of the Ophthalmia and its consequences; namely, that it is the general, if not invariable, effect of the inflammation in the acute stage of the disorder, to produce, in a greater or less degree, what are termed granulations on the inner surface of the eye-lid; that these granulations render the patient subject to relapses, and are frequently the cause of blindness; that during the relapses so happening, the patient is liable to become again infectious; and, therefore, that these granulations must invariably be looked for, and removed before the patient can be effectually cured.

Secondly, Upon his having attended the Ophthalmic Hospital since its first formation in 1817, without having hitherto received any remuneration for that duty.

Upon the first point, your Committee have to report, That the existence of these granulations, and the necessity of removing them, seem to have been known in very early times, and are adverted to in the works of Celsus, in the first century, of Paulus of Ægina in the seventh, of Rhases the Arabian in the tenth, and in the work of Sir William Reid, in the reign of Queen Anne. That, consequently, no person in the present day can claim more than the merit of having revived knowledge which had fallen into neglect. Your Committee do not feel it necessary to pronounce between the conflicting claims upon this head, or, by recommending a parliamentary reward for such revival, to decide to whom the merit properly belongs. They conceive, that question is best left to the decision of the profession, and of the public. But they are of opinion, that Sir William Adams has, among others, been greatly instrumental in promulgating this knowledge, and, in rendering it generally available.

Upon the second point, your Committee have to report, That since the first establishment of the Hospital in 1817, Sir William Adams has devoted to the duties arising out of his appointment, a large portion of that time which, to a professional man, is the source of income; and that, inasmuch as the time which he could apply to his private practice has thereby been much curtailed, his professional emoluments must also have been proportionally lessened. That he has performed the difficult duties of his appointment with the greatest zeal and assiduity; and that your Committee have been led to form the highest opinion of his skill and abilities as an oculist.

Your Committee, taking into consideration all the circumstances of the case, are induced to recommend, that the sum of Four Thousand Pounds should be paid to Sir William Adams, as a reward for the services which he has rendered to the public.

July 3, 1821.

ASSOCIATED APOTHECARIES, AND SURGEON APOTHECARIES OF ENGLAND AND WALES.

At the Annual General Meeting of the Associated Apothecaries, and Surgeon Apothecaries of England and Wales; held by Public Advertisement, at the Crown and Anchor Tavern, Strand, July 4, 1821.—Joseph Hayes, Esq., *President.* The following Report from the General Committee was read, viz.:—

In conformity with its duty to the Association, and with the laudable custom that has hitherto prevailed, the Committee respectfully submits to the General Meeting its Annual Report.

It would have been extremely gratifying to all its members, could your Committee have announced the attainment of that important object which has been so long and so ardently desired; viz.: a legislative provision against the mal-practices of illiterate individuals, who, under usurped titles, carry on the practice of medicine, equally to the dishonour of a liberal profession, and to the injury of the community at large.

But the Committee still feels that neither House of Parliament is sufficiently aware of the evils which result from the present state of medical practice, as to be convinced of the necessity of a change; it can only regret, therefore, that during the last year, no favourable opportunity has presented itself of making a further application to the legislature.

Parliament is very wisely jealous of making enactments at the suggestion of petitioners, who may be actuated by motives of private advantage, rather than by a desire to benefit the public; and it is not to be expected, the House of Commons having rejected the Surgeons' Bill, on grounds which seem to prove their unacquaintance with the real merits of the question, that Parliament will be at present disposed to grant any effectual relief for the imperfections of the Apothecaries' Act; nevertheless, your Committee is firmly persuaded, that in no long time, through the measures adopted, such a mass of evidence will be collected and arranged, as will convince the public of the mischiefs and mortalities that are continually happening from confiding the treatment of difficult and even dangerous diseases to ignorant and uneducated persons; and of the absolute necessity thence arising of resorting to legislative precautions, as the only adequate remedies.

Convinced that such is the true state of the case, your Committee has exerted itself to collect evidence at once strictly correct, clear, and decisive; and, in obedience to the 16th and 17th resolutions of the last annual meeting, circular letters have been sent into every quarter in which the Society has influence, requesting the practitioners therein resident, to transmit to the Secretary of this Society, all cases of gross mal-practice that occur within their knowledge, and which admit of being duly substantiated, in order that they may be forwarded to the Society of Apothecaries, whose ready attention, and vigorous co-operation with the views of this Association, your Committee thankfully acknowledges, and of which it has every reason to expect a continuance. Various communications have already been received, especially from Lancashire, stating the gross ignorance, and palpable misconduct, of persons who, without education, or learning, or study, of any kind, have yet had the assurance to practise medicine. Your Committee earnestly hopes that, under the Apothecaries' Act, some example may be made of such unprincipled offenders; and that the same salutary consequences will every where result from their exposure, as followed the well-known trial and conviction which took place in Staffordshire in the year 1819.

The Committee cannot refrain here from expressing its marked approbation of the intelligence and activity which characterise the practitioners in the last-mentioned county, abundantly shown in their correspondence with this Committee; in the establishment of a medical and surgical library; and in the still increasing numbers of their members, there being no fewer than one hundred and thirty gentlemen resident in that county, who belong to this Association.

The 15th resolution of the last general meeting, recommended to the Committee to take into consideration the 28th clause of the Apothecaries' Act, with a view to the removal of certain practices which prevail, to the great injury of the Profession, under the supposed sanction of that act. After repeated and lengthened discussions on the subject, your Committee regrets to state, that, until the act referred to shall itself undergo the revision and amendment of which it stands so much in need, no hope can be entertained of instituting and enforcing any effectual remedy for the evils alluded to. Nevertheless a new act may be so framed as to meet the difficulties which arise from the ambiguity of that clause, and to restrain, at least, from prescribing for diseases, and from practising medicine, all those who by a regular attendance on the schools of medicine, and subsequent examination before competent authorities, shall not have proved themselves qualified for these important offices. Of a new act, such a *restrictive* clause would *undoubtedly* form a *prominent* and even *essential* part.

In furtherance of the same objects the Committee has laboured to carry into effect the 18th resolution of the last annual meeting, by the volume of Transactions which, under the sanction of this meeting, the Committee, especially appointed for that purpose, will shortly have the honour to lay before the public: they hope to show that, whilst the work contains valuable papers from individuals in every branch of the Profession, part of its details will point out the prevalence and evil tendency of ignorance in those who practise the medical art without having been properly instructed; the remainder of the volume evinces the advantage of systematic education of every medical man. Your Committee, believing that the attainment of these objects, for which the Society has been formed, will be greatly expedited by the periodical publications of similar volumes of Transactions; and feeling proportionally anxious to circulate the present collection, as generally as possible, amongst the members of the Society; therefore suggests, that such of them as may agree to subscribe for the work, shall receive copies at, as nearly as possible, its *cost price*, and that the remaining copies of the work shall be sold to the public at such a price as shall bring a profit to the Society: thus assisting in preventing the further diminution of the funds of the Society.

It is further to be observed, that, as this intended volume will contain the annual report, and the existing rules and regulations of the Association, with a list of its members, the considerable expense which has hitherto been incurred by the publication of all these in a detached form, will hereafter be saved to the Association.

Thus occupied at its several meetings, your Committee, while it claims not the merit of extraordinary labour, yet ventures to cherish the hope that the Association will give credit to its members, for having performed, with fidelity and zeal, all the duties imposed upon them; for having given the earliest attentions to every communication and promising suggestion laid before them; for having economised, to the utmost, the funds of the Society; and, above all, for having, in every deliberation, and every act, steadily kept in view the ends for which they were appointed, and which all the members of this extensive Association desire to promote, viz. the amelioration of the condition of suffering mankind, and the respectability, the honour, and the welfare of enlightened and liberal Practitioners of the healing art.

PHRENOLOGICAL SOCIETY OF EDINBURGH.

This Society has just published a Report of its proceedings since its establishment on the 22d of Feb. 1820, to the close of the second Session on the 23d of April, 1821, of which the following is a pretty copious extract:

"The existence of this Society implies a belief in the members, that the brain is the organ of the mind, and that particular parts of it are the organs

of particular mental faculties; and that these facts afford a key to the true philosophy of man. The Society is aware of the opposition which the doctrines have met with, and of the ridicule which has been cast upon them; but they know also, that in all ages a similar reception has been given to the most important discoveries; which, nevertheless, have in time prevailed.

"The propositions that consciousness reveals nothing in regard to the seat or distribution of the organs of the mind, and dissection nothing in regard to the functions of the brain, are so obviously true, that they admit of no dispute. Nevertheless, philosophers on the mind, in conducting their inquiries, have relied too much on mere mental reflection; while physiologists, in seeking to discover the functions of the brain, have resorted too exclusively to dissection. These facts explain the past and present ignorance of mankind in general, on these interesting points in the philosophy of man; and point out, in the clearest manner, the necessity of resorting to a new method of inquiry, that more perfect information may be obtained. Dr. Gall was the first to introduce the mode of comparing mental manifestations with cerebral development; and this method has led to discoveries which could never have been attained by the means previously employed. By this mode of philosophising, the Phrenologist has attained knowledge in place of ignorance, and system in place of hypothesis, in many points highly important in the philosophy of the mind, and the physiology of the brain; and while he perceives, with a mixture of pity and regret, the determination with which many sensible men adhere to the former defective systems, he feels a perfect conviction that the new method requires only to be studied to be highly appreciated; and that, as it becomes known, the present opposition must disappear. The ridicule with which the new doctrines are pursued gives the Society no uneasiness. They have experience for their warrant in saying, that it is uniformly in the ratio of the ignorance of him from whom it proceeds; and they know that no enlightened individual ever compared mental manifestations and development of brain, with a serious desire to discover the truth, who found it possible to continue to scoff. Those who made the discoveries of Galileo and Newton objects of their wit, appear now to have been shallow-minded indeed; and those who have found subjects of ridicule in the constitution of their own nature, will probably be judged by posterity to have been not more profound. The Phrenologist knows that the organization and functions of the brain are as independent of human belief as the motions of the globe. Individuals, therefore, may scoff at the doctrines of phrenology, and think them too ridiculous to merit an inquiry: but the Society are convinced, that nevertheless every human being will continue, although unconsciously to himself, to manifest his faculties, by means of different parts of the brain, and with a power corresponding to their size and activity; and that mankind at large will believe the fact, as they did the revolution of the globe, whenever they turn their attention to the evidence. The Society, therefore, hold the principles of Phrenology as no longer subject to doubt; and while they recommend an attention to the subject to every reflecting and virtuous individual, who considers a knowledge of himself and of human nature as an object of importance, they conceive themselves called upon to direct their own efforts rather to enlarge and apply the truths which Phrenology reveals, than to strengthen the evidence on which the general principles rest."

A case of what has been termed the spontaneous evolution of the fœtus, has lately occurred in the Parochial Infirmary of St. George, Hanover Square. It may be considered as an exact counterpart to that described by Dr. Gooch, in the last volume of the Transactions of the College of Physicians: and thus affords another proof, if it were wanted, of the accuracy of Dr. Douglas's explanation of this occurrence.

A METEOROLOGICAL TABLE,

From the 21st of JUNE to the 20th of JULY, 1821.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.	Barometer. Min.	Therm. Max	Therm. Min.	Rain Gauge	Winds.	Weather.
21	29 88	29 86	61	47		NbE.	1 Sun. 2 Sun...
22	29 92	29 92	60	46		NNW.NNE.	124 Cloud... 3 Sun..
23	29 93	29 88	62	45		NW.NE.	1 Cloud... 2 Sun..
24	29 94	29 94	55	46		NW..NbE..	1 Sun.... 2 Cloud...
25	29 97	29 92	59	46		N.NE.	14 Cloud... 23 Sun.
26	29 92	29 87	59	42		NE..	1 Cloud.. 2 Sun.,.
27	29 92	29 88	61	42		N...	1 Sun..
28	29 88	29 83	68	40		N.E.	1 Sun... 2 Cloud.. 4 Star...
29	29 77	29 60	72	39		Calm NE.	1 Sun..
30	29 50	29 37	67	49		Variable SE.	1 Sun.. 3 Cloud...
1	29 55	29 53	58	38	01	N.NE.	1 Cloud.. 2 Rain. 3 Sun..
2	29 59	29 59	66	38		NE.	1 Sun..
3	29 74	29 72	65	42		NW.NE.	1 Sun..
4	29 84	29 80	63	40		NW.EbN.	1 Sun...
5	29 84	29 67	68	41		NW.NE.	1 Sun..
6	29 60	29 53	59	47	13	WSW.N.	1 Clo... 2 Ra.. 3 Sun. & Sh.
7	29 75	29 71	59	45	07	N.	1 Show. and Sun.
8	29 78	29 72	64	47	01	N.WNW..	1 Show. 3 Sun...
9	29 78	29 75	65	48		W.NE.	1 Sun... 24 Cloud.. 3 Sun.
10	29 83	29 82	66	43		W.NE.	13 Sun.. 24 Cloud..
11	29 83	29 78	65	35		NW.NE.	1 Cloud.. 2 Sun...
12	29 76	29 67	70	47		Variable NE.	1 Sun... 3 Cloud..
13	29 58	29 49	72	48		Variable.	1 Cloud.. 2 Sun.. 4 Moon...
14	29 38	29 30	73	53	03	WSW.	1 Sun.. 3 Rain. 4 Cloud..
15	29 57	29 52	67	44	04	WNW.NE.	1 Sun.. & Sh. 3 Sun.. 4 M...
16	29 81	29 75	71	48		WSW.SW..	1 Sun..
17	29 95	29 95	71	52		SW.	1 Cloud.. 2 Sun..
18	29 92	29 85	73	55		SW.SE.	14 Cloud.. 2 Sun.
19	29 64	29 46	81	54	02	SE..	1 Sun... 4 Rain. & Thund..
20	29 38	29 33	75	55	06	SW..	1 Clou.. 2 Sun.. & Sh. & T.

The quantity of rain during the month of June was 1 inch and .03-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Catarrhus, Diarrhœa, Epistaxis, Febris continua, Hæmaturia, Menorrhagia, Obstipatio, Ophthalmia, Palpitatio, Spasmi, Strictura, Vaccinia, and Vertigo.

THE METEOROLOGICAL JOURNAL,

From the 19th of JUNE, to the 20th JULY, 1821,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon.	Rain.	Therm.	Barom.	De Luc's Hygrom.	Winds.		Atmo. Variation.		
20			54 59 48	30 09 30 09	55 52	N	N	Clo.	Fine	——
21			54 59 47	30 08 30 14	54 54	NE	NNE	Fine	——	——
22	☾		53 58 52	30 19 30 20	54 56	N	NNW	Fine	Clo.	Fine
23			56 58 49	30 19 30 19	55 57	NE	NNE	Clo.	——	——
24			52 57 53	30 15 30 11	55 57	NNW	NE	Clo.	——	——
25			59 63 53	30 14 30 18	55 55	ENE	NE	Clo.	Fine	Clo.
26			58 63 53	30 11 30 10	56 55	NE	NE	Fine	——	——
27			55 65 55	30 11 30 15	54 55	NE	NE	Fine	——	Clo.
28			59 67 54	30 15 30 16	53 55	N	E	Fine	——	——
29	☾		57 67 59	30 16 30 06	54 53	ESE	W	Fine	——	——
30		,26	65 72 61	29 99 29 80	53 57	SW	S	Fine	Rain	——
1		,39	63 68 50	29 62 29 73	58 60	WSW	ESE	Clo.	——	Rain
2		,25	52 56 49	29 81 29 82	58 56	E	E	Rain	Clo.	——
3			53 56 45	29 82 29 96	57 56	E	NE	Clo.	——	——
4			54 59 53	30 04 30 17	55 55	NE	WNW	Fine	——	——
5			59 64 56	30 20 30 14	54 55	N	NW	Fine	——	Clo.
6			60 63 53	29 95 29 83	56 57	WNW	W	Clo.	——	Rain
7	☽		56 59 49	29 83 30 00	57 57	NNE	NE	Clo.	Sho.	Clo.
8		,35	55 60 55	30 02 30 12	57 57	NNE	NE	Fine	——	——
9			60 66 58	30 12 30 12	54 54	NNW	NNW	Fine	——	——
10			62 62 55	30 13 30 13	55 56	NW	NNW	Fine	——	——
11			57 61 54	30 16 30 13	57 56	NE	E	Clo.	——	——
12			58 62 52	30 10 30 07	55 55	E	SE	Clo.	Fine	——
13			59 63 50	30 00 29 91	54 55	SSW	WSW	Fine	Clo.	——
14			55 60 55	29 83 29 81	54 55	WSW	WNW	Clo.	Fine	——
15	☉	,26	57 59 55	29 71 29 82	57 57	W	WNW	Rain	——	Fine
16			60 65 58	30 00 30 12	58 57	N	WNW	Fine	——	——
17			64 67 57	30 24 30 33	56 56	NW	SW	Clo.	Fine	——
18			54 69 59	30 33 30 26	54 54	SSE	SE	Fine	——	——
19			66 71 62	30 12 29 88	57 57	ESE	ESE	Fine	——	Lgt.

The quantity of rain that has fallen in the month of June was 2 inches and 27-100ths.

A REGISTER OF DISEASES

Between JUNE 20th and JULY 19th, 1821.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	9	2	Furunculus	1	
Abscessio	4		Gastrodynia	8	
Amaurosis	1		Gonorrhœa *pura*	3	
Amenorrhœa	4		Hæmatemesis	4	
Anasarca	9	1	Hæmoptöe	7	1
Aphtha *lactentium*	1		Hæmorrhois	4	
Apoplexia	7	3	Hepitalgia	2	
Ascites	8	1	Hepatitis	10	
Asthenia	4		Hernia	4	1
Asthma	9	1	Humeralis	2	
Atrophia	3		Hydrocele	1	
Bronchitis *acuta*	6		Hydrocephalus	2	1
——— *chronica*	5		Hydrothorax	1	1
Cancer	1		Hypochondriasis	2	
Carbunculus	2		Hysteria	3	
Cardialgia	1		Hysteritis	2	
Carditis	3		Ileus	1	
Catarrhus	14		Impetigo *figurata*	2	
Cephalalgia	11		——— *scabida*	1	
Cephalæa	4		Ischias	3	
Chorea	5		Ischuria	1	
Cholera	6		Lepra	1	
Colica	4		Leucorrhœa	4	
——— *Pictonum*	2		Melancholia	1	
Convulsio	3		Menorrhagia	12	
Cynanche *Tonsillaris*	16		Miliaria	1	
——— *Parotidea*	3		Morbi Infantiles*	38	3
Diarrhœa	6		——— Biliosi*	18	
Dolores	10		Neuralgia	1	
Dysenteria	7	1	Obstipatio	7	
Dyspepsia	25		Odontalgia	11	
Dyspnœa	3		Ophthalmia	7	
Dysuria	2		Otalgia	3	
Ecthyma	1		Palpitatio	2	
Eczema	1		Paralysis	7	
Enteritis	6		Pericarditis	1	
Entrodynia	1		Peripneumonia	5	
Epilepsia	1		Peritonitis	7	
Epistaxis	1		Pertussis	2	
Erysipelas	4	1	Phthisis Pulmonalis	12	4
Erythema *læve*	2		Plethora	1	
Febris *Intermittent*	9		Pleuritis	14	
—— *catarrhalis*	10		Pleurodyne	5	
—— *Synocha*	1		Pneumonia	2	1
—— *Typhus mitior*	1		Podagra	4	
—— *Typhus grav.*	4	1	Polypus	4	1
—— *Synochus*	7		Pompholyx *benignus*	1	
—— *Puerpera*	2		Porrigo *larvalis*	2	
—— *Remit. Infant.*	5		——— *favosa*	1	
Fistula	2		Prolapsus	1	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Prurigo *mitis*	2		Strictura	1	
Psoriasis *guttata*	2		——— *ani*	1	1
Pyrosis	4		Syphilis	1	
Rancido	1		Tabes Mesenterica	15	
Rheuma *acutus*	14		Tetanus	3	
——— *chronicus*	23		Vaccinia	23	
Rubeola	14		Varicella	6	
Scabies	47		Variola	21	8
Scarlatina *simplex*	18		Vermes	11	
——— *anginosa*	5		Vertigo	11	
——— *maligna*	2		Vomitus	1	
Scorbutus	2				
Scrofula	9		Total of Cases	734	
Spasmi	2		Total of Deaths		30
Splenitis	1				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases; with a Notice from Mr. Fitch, *respecting Colchicum Seeds.*

The results of some trials made with the colchicum seeds have convinced us of their very great, although by no means invariable efficacy. These trials, however, have hitherto been limited; since we were anxious to procure such seeds as could be depended on; and we are now happy to announce the receipt of a parcel from Mr. Fitch, Druggist, of Ipswich, which we shall forthwith order to be prepared. With the parcel of seeds Mr. F. has transmitted the following letter: "As the season is now over for collecting the colchicum seeds, I have forwarded for your acceptance a small quantity. I have enclosed likewise a sample of the seed gathered about a fortnight since, which, not being sufficiently ripe, has wasted nearly two-thirds in drying it. Having collected a very considerable quantity of it, I should feel obliged by your mentioning it in the Repository; as its very extensive circulation will readily point out to medical Practitioners where it is to be obtained without paying the extravagant price which has been asked for it by different houses in London."

We are desirous to call the attention of our readers to the great advantage of the croton oil, which, from having its virtues so exceedingly concentrated, becomes an efficacious agent, under circumstances of defective deglutition, or constipation, attended with stomach irritability. A few days since, a fine boy, nearly suffocated from the violence of croup inflammation, was very speedily relieved, by merely smearing the tongue with the cork from the croton oil bottle; and several other cases have occurred during the month, in which the medicine in question has manifested a most happy efficacy.

Remarks by Mr. Hilditch.

"The case of abscess, reported fatal, occurred after parturition. It burst externally, near the groin. Permission to examine the body could not be obtained. The patient lingered for some months, and then sank exhausted by the discharge. She had been attended by a midwife. The labour was natural, and the child is now in good health.

"The case of hernia, was one of long standing, in which the scrotum became enormously distended. The patient, a very old man, refused to sub-

mit to any operation, or even to try the bath a second time, observing, that his glass was run. An insuperable obstruction existed in some part of the alimentary canal, as was evident from the vomiting of stercoraceous matter, non-action of purgatives, &c. But there was neither pain, tension, nor any appearance of inflammation, in the neighbourhood of the ring; and the patient referred his uneasiness principally to the umbilical region."

Remarks by Mr. BURGESS.

" John Thomas, aged seventy-two, *paralytic*, was a pauper in this house (St. Giles's Workhouse) for many years, seven of which period, he was confined to his bed from an injury of his hip, which three respectable Surgeons reported to have been a *dislocation*. In consequence of his death, an opportunity was afforded to examine the case, when it proved to be a *fracture* of the neck of the thigh bone, which had *never united*. On opening the chest and abdomen, nearly the whole of the pericardium was found to be ossified, an extensive adhesion of the lungs to the pleura, and only one kidney to be found, which was nearly the size of two. Every other part of the viscera was found to be in a healthy state. Preparations of the above unusual circumstances are in the possession of Mr. Bell, of the Middlesex Hospital. But for the hip case, most likely this man would have been buried without an examination; and, consequently, the above circumstances would not have been discovered."

MONTHLY CATALOGUE OF BOOKS.

Researches into the Laws and Phenomena of Pestilence; including a Medical Sketch and Review of the Plague of London, in 1665; and Remarks on Quarantine, &c. &c. By Thomas Hancock, M. D. 8vo. Price 8s.

The Principles of Forensic Medicine, systematically arranged, and applied to British Practice. By John Gordon Smith, M.D. 8vo. Price 14s.

A Series of Lectures on the most approved Principles and Practice of Modern Surgery, principally derived from the Lectures delivered by Astley Cooper, Esq., at Guy's and St. Thomas's Hospital. By C. W. Jones. Second Edition. By C. M. Syder. 8vo. Price 12s.

An Essay on the Utility of Sea Bathing, &c. By J. W. Williams, Member of the Royal College of Surgeons. 12mo. Price 5s. 6d.

Drs. Barker and Cheyne on the Rise, Progress, and Decline of the Epidemic Fever in Ireland. 2 Vols. 8vo. Price 1l. 6s.

A Treatise on Mucous Membranes. by Xavier Bichat. Translated from the French, by J. Houlton. 8vo. Price 4s. 6d.

NOTICES TO CORRESPONDENTS.

We have only this month to acknowledge the communications of Mr. Hulbert *and* Mr. Perry; *but we have to apologize for the delay of several papers, which shall appear as soon as possible.*

The tracts on the Medical Profession, we fear, have been mislaid, if they have ever reached us. We will, however, set about another search for them.

*** *Communications are requested to be addressed (post paid) to* Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

No. 93. SEPTEMBER 1, 1821. Vol. XVI.

PART I.

ORIGINAL COMMUNICATIONS.

I.

Some Remarks upon Dr. Copland's Paper on Chronic Inflammation of the Peritonæum.—By John Fosbroke, Surgeon; Berkeley.

I observe in the Repository (May, 1821), "Cases of Chronic Inflammation of the Peritonæum, &c. &c.—By James Copland, M. D."—In his remarks, the author has exhibited considerable research; but has committed error in confounding two diseases wholly different: though he cannot be said to be *solely* in error, as I have endeavoured to show in a paper yet unpublished. As, in many points, the misconceptions and misstatements of the opinions of other writers may have a tendency to mislead the mind of the reader, I beg leave to enter some observations on the points in question.

Dr. C. having stated certain cases of chronic inflammation of the serous membranes of the abdomen, considers the "justly celebrated Bichât" as the first writer who distinctly adverted to this disease, in that passage in which he says: "Ces sont ces inflammations lentes dont je parlais tout-à-l'heure, maladie qu'il faudrait plutôt ranger dans une classe autre que celle des phlegmasies, et que la production des petits tubercules qui l'accompagnent caractérise surtout."

This passage, which Dr. Copland assumes, with seeming confidence and satisfaction, to be the first *distinct* specification of chronic peritonitis, not only contains so much that is widely dissevered from a *distinct* and unequivocal allusion to

that disease, but is, *prima facie*, so entirely at variance with Dr. C.'s own pathological researches, that it is extraordinary how he could thus be led on with a notion of identity of the affection alluded to by Bichât with that described by himself. I am the more surprised at this forced connexion of dissimilar things, since there are, moreover, in the passage itself, positions advanced as perversely contradictory of each other, as refractory to the relation which Dr. C. conceives to be established by the whole. At the beginning of one line, Bichât designates the malady of which he is speaking, a species of "ces inflammations lentes;" and in the next, calls it a "maladie qu'il faudrait plutôt ranger dans une classe *autre que celle des phlegmasies.*" Do two propositions, so inconsistent with each other, convey any precise idea that a disease, consisting in simple chronic peritoneal inflammation, is hereby meant to be *distinctly* described? I conceive that Bichât's allusion implies an affection otherwise characterized and described by Dr. Baron under the title of "tuberculated accretions of serous membranes." Bichât, in the contradictory and hesitating manner in which he speaks, induces, if any thing, a belief that this affection *could not be affirmatively called "chronic peritonitis."* On this point Dr. Baron has observed, "These considerations forcibly struck Bichât; and they have betrayed him into an inconsistency seldom to be found in his writings. He was aware of the peculiarity of this disease; and though he, at one time, enumerates it among the consequences of inflammation, he seems soon to have detected his error, and to have assigned to it a different origin*." Again, Dr. B. says: "Thus he (Bichât) speaks at one time: 'de ces *inflammations chroniques* avec productions d'une foule des petits tubercules blanchâtres qu'il est si fréquent de trouver sur ces membranes.'" Shortly after he maintains that it is a malady "qu'il faudrait plutôt ranger dans une classe autre que celle des phlegmasies, et que la production des petits tubercules qui l'accompagnent caractérise surtout. Les auteurs qui n'ont point assez fixé leur attention sur elle, l'ont dénominée entérite chronique dans le péritoine†."

Nor is this the only light in which the affection described by Bichât is rendered a peculiarly unfit analogue with that which forms the theme of Dr. C.; but some other points, beyond the mere question of origin, serve to create essential distinctions between the two, which are singularly overlooked by him. For instance: Bichât is speaking (to re-quote his words) of an affection "que la production des petits tubercules qui l'accompagnent caractérise surtout;"

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* Inquiry, p. 74. † Id. p. 75.

and yet Dr. C. is most complacently satisfied with this as a distinct description of a disease, with such a great dissimilitude in his own cases, as also in Dr. Pemberton's, that he, (Dr. C.), could observe neither tubercles nor granulations, although his attention was directed to this subject.

Here is evidence enough, I conceive, from morbid appearances, to convince any candid or logical reasoner, that the diseases described by Dr. Pemberton, and commented on by Dr. Copland, and that to which Bichât has alluded, and Dr. Baron more fully explained, differ in their etiology, and are, by the two latter authors, characterized as contrary. If the diseased changes are the same in chronic peritonitis and the tuberculated disease of the abdomen, Dr. C. errs in stating Bichât to possess the first claim to a precise reference to such diseases, unless we overlook Lieutaud and many others whom Dr. Baron has cited for faithful and well-delineated cases. I must express, at the same time, the greatest scepticism of Dr. Pemberton having first described chronic peritonitis in this country; and such pretensions vanish in a moment if the propositions of Dr. C. are admitted.

Dr. Baron has no where said, that the chronic peritonitis of Dr. Pemberton constitutes the tubercular disease; nor can I account for this compulsory identification of two maladies which seem to be so widely averted in many points, according to the descriptions both of Dr. Pemberton and Dr. Baron. The latter has most forcibly illustrated the distinction.

In the tuberculated disease we are aware that there are two processes: the primary consists in the formation of tuberculous bodies; the secondary in adhesive inflammation.

The first series of changes Dr. Baron has spoken of, as arising from obscure and protracted morbid actions, incompletely elucidated. In consequence of the previous growth and distribution of tuberculous bodies, produced by such processes, adhesive inflammation, chronic in its form, may follow, by which the corresponding surfaces of the circumscribed cavities of the thorax, or abdomen, become reciprocally united; and if not by immediate contact, through the medium of factitious membrane *.

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* The manner and facility in which this membrane is produced after the division of arteries, and the abscinding of intermediate portions, and also insensibly from serous effusions, leads me to think that, requisite as it is as the basis of re-production, a process, different from that of inflammation, may be sufficient to call it into existence. So closely does it approach in constituent arrangement to coagulable albumen, that it is possible its solidity may be effected by the abstraction of that law of affinity which is necessary to preserve it in a fluid state.—See some interesting Remarks and Extracts in Dr. Charles Parry on the Arteries, p. 38.

In chronic peritonitis we have the latter process without the former; therefore the last cannot be said to be the consequence of the first; nor two diseases to be the same in which there is so material a defect in the originating stadia. In the one instance, the chronic inflammation is idiopathic; in the next, excited adventitiously by certain previous morbid changes of structure, acting as extraneous irritants. If such natural differences lead to no discrimination, nosology is mere supererogation, and open to every sally of violence and infraction.

Dr. C. continues: — "I am neither inclined to fall in with his (Dr. Baron's) sweeping *generalization* on this subject, nor to adopt his *reasoning as to their seat* or *mode of production.*"

I think it will appear that Dr. C. is by no means versed in an accurate conception of Dr. Baron's "generalizations," nor "his reasoning as to the seat or mode of production of tubercles;" but, previous to this, I will slightly advert to some other points, more objectionable as they now rest.

Dr. Copland is willing to explain the origin of tuberculated and granulated structures, though, in the cases related by himself, he could observe neither tubercles nor granulations, whereon to form the edifice. In whatever manner we may be tempted to contemplate the practicability as well as ingenuity of explaining material changes without reference to demonstrative aids, yet as such attempt necessarily involves a claim of superiority over reasonings, founded on the actual displays of accumulated dissections, and the context of morbid changes in "concourse and succession," I am still prejudiced enough to fear the value of a substitution, so much more conformable to the bold system of Plato than that of Lord Bacon, to which last it flatly bids defiance.

Dr. C. says: — "I believe the granulated and tuberculated structure observed in the chronic diseases of this membrane neither to derive its origin *from hydatid*, nor from dilated lymphatics, nor from dilatation of capillary blood-vessels." In my opinion, such diseased structure may be traced to, and may be seated in, the cellular tissue, immediately subjacent to, and connecting this membrane to the adjoining parts; and that it is produced in that texture, by the chronically inflamed state of the capillary vessels opening in that tissue, secerning a viscid lymph, which, from its state of fluidity, and the more compact nature of this texture immediately underneath the peritonæum, cannot flow far from the vessels from which it issues, nor communicate with the similar fluid in its vicinity: the peritonæum is, therefore, elevated into a tuberculous appearance; and as these increase in magnitude, the cellular substance intervening between the minute collections of viscid fluid, becomes condensed into cysts; and hence,

as the contents accumulate, any communication between them becomes more difficult. I may again recur to Bichât's remarks, and inquire how can Dr. Copland express the acceptance of opinions of the former, consistently with what he says in decided opposition to these (Bichât's) opinions afterwards? For instance: Bichât says, " Il est une maladie *des surfaces séreuses* qu'on ne voit point *dans le système cellulaire;*" and Dr. Copland maintains exactly the contrary.

Is the notion of " viscid lymph," poured forth by effusion into the cells of adipose membrane posterior to the peritonæum, the result of actual observation?

Is this " viscid lymph," coagulable albumen, or the ordinary exhalation of the cellular tissue, modified in any specific manner?

Are the " granulated and tuberculated structures," in Dr. C.'s opinion, in reality identical forms of morbid change of structure?

Dr. C. says he does not believe the foregoing changes to be brought about from " dilatation of capillary blood-vessels;" by which, I suppose, he means to object to Broussais' theory; " but from the chronically inflamed state of the capillary vessels in cellular tissue." Does the author mean to deny that dilatation of blood-vessels is a consequence of inflammation?

——— " Becomes *condensed* into cysts."

I cannot understand this. He observes that tubercles have not their origin from hydatids; yet he afterwards speaks of cysts. What is the precise distinction which he wishes to infer between cysts and hydatids? The process of forming cysts, to which he alludes, is so singular, that I can annex no idea to the terms capable of informing me how or in what way it takes place. Surely *this* theory is not altogether exempt from the " sweeping" charge of being a " sweeping generalization;" for it undoubtedly sweeps away a variety of phænomenal particulars in the history of tubercles, which might be deemed necessary in fidelity of description. The learned author disdains the slightest allusion to the possibility of difference between depositions in the cells of adipose structures and tuberculous bodies. Is it not rather a limited notion of the latter to make them all of one external form, that is, simple granular elevations, without reference to the series of obscure processes by which they are generated; and in the course of which they are marked by many obscure changes, and varieties of form? We have nothing, too, about the pellucid tenuity of hydatids, their dependency from each other, their invagination, and their *débris*, as found in the structure of tubercles, somewhat unconformable to the regular and ordinary arrangement given to cysts by Dr. C.

An explanation is offered of the formation of cysts and tubercles in the peritonæum and factitious membrane, on the ground of the identity of serous with cellular membrane.

As cellular membrane is acknowledged by all physiologists to furnish not only the materials of re-production, but the basis of many structures, which may, therefore, be defined condensed cellular membrane; yet the elementary systems admit of some difference in their modes of arrangement in each of these. For instance: exhalant capillaries do not open into cells, as in simple cellular structure, upon the serous surfaces, but by exhalant orifices; a material deviation, considered in relation to this mechanical theory of tuberculous deposits. "Such I consider to be the origin and process of formation of the tuberculated structure, whether observed in the liver, lungs, peritonæum, or pleura. Such disease is never seen in any organ that is not essentially possessed of a cellular texture." This requires a little more reflection. Are not cysts and tubercles found in situations which entirely contradict the possibility of cellular membrane forming the imbedding substance, and serous membrane the elevated structure? For instance: see facts related by Dr. Abercrombie, in his paper on apoplexies, &c.

Nor is all this theory and objection merely repugnant to the opinions of Dr. Baron; but equally so to those of Laennac, the celebrated French pathologist. The whole that I have already passed over is quite convincing that Dr. Copland could never have written thus on this subject, with a perfect knowledge of Dr. Baron's writings. I attribute his limited views of the subject, and the manner in which he alludes to Dr. B.'s reasonings, to opinions formed through the medium of reviews, in which it is very possible there might be no want of misconstruction or misrepresentation. To expose the latter, and show grounds for my animadversions, I need only recapitulate the distinct propositions embodied in Dr. Baron's work. Dr. Baron has affirmed, that "tubercles exist in almost every texture," and that "their origin and essential character will probably be found to be the same wherever they are discovered*." Again; he has asserted, that these tubercles "were, at their commencement, small vesicular bodies; i.e. hydatids with fluid contents;" that these bodies subsequently undergo transformations, on the nature of which their tuberculous character depends; that these transformations are progressive, but not uniform, and that it is only in the larger hydatids that they can be accurately traced. They commence with an opaque spot, which ad-

* Vid. Inquiry, p. 75.

vances, in some instances, with rapidity; in others more slowly*; and alternately convert both the contained and containing parts into substances very different from what they were at first. He has further asserted that, " on the size, relative position, and structure of the tubercles which are so formed, depend the characters of many of the most formidable disorganizations to which the human body is exposed." In elucidating these varieties, he has stated, that sometimes " an immense number of very small tubercles are generated in juxta-position, and unite together, forming a mass of varying degrees of density and firmness†; that in the earlier stages of its growth, a granulated appearance may be distinctly traced; but, in process of time, this disappears, and the consolidation becomes more complete." He has, moreover, distinctly referred to the identity of tubercles, whether they occur in the lungs, or in the serous membranes, affirming that it is the " situation and structure of the organ in which they are formed, which occasions the variety in the symptoms and progress of the various affections."

A few more words, and I have done. In the symptoms of Dr. Copland's second case are not to be recognised the peculiarly clear order of semiological changes which Dr. B. has described; the darting pains, the peristaltic obstruction in the latter stages, and other symptoms which characterize the tuberculated disease.

It must be recollected, that the latter disease has, in no recorded instance, yet been traced to any connexion with translated rheumatism, nor could. There is some relation between previous disordered functions of nutrition, defective absorption, and the formation of tuberculated affections of the thorax and abdomen, in men and animals. In the latter, especially sheep, my researches enable me to speak affirmatively. I have traced every morbid change, from the generation of the pellucid vesicle to the tubercle, and from the tubercle to the bony tumor, which preserves, in its most consolidated parts, the visible hydatid.

If I may venture to offer an opinion on the causes of the confusion of the two diseases, which I have endeavoured to discriminate, I think it may be said that it was because there is inflammation in both. So there may be in peritoneal dropsy, and many other things. To misapprehension of Dr. Baron's doctrines, with regard to inflammation, may be imputed probably the unpopularity of his system; he has not, however, denied the powers of inflammation to originate tubercles; but he accords with the foster-father of the doctrine of

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* Inquiry, p. 98. † Id. p. 218.

inflammation, Mr. John Hunter, in presuming that they may spring more generally from an action of another kind.

My own opinion of Dr. Baron's reasoning is, that they are founded on simple demonstrative data; and, however they may rest stationary as objects of contemporary regard, they are so knit together of imperishable materials, that they will renovate themselves more vividly and seriously into contemplation and recovery, when time has left them conspicuous among the immortal things that resist its waste.

In a work*, not long since published, it is said in a note:— "In a late essay, by Dr. Baron of Gloucester, on 'Tuberculated Accretions of the Peritonæum,' an ingenious attempt has been made to introduce into pathology, a principle of *lymphatic irritation*, not dissimilar, probably, to that adopted by the French pathologists. This author *rejects altogether* the notion of such a morbid action of vessels as that to which the term chronic inflammation could be applied."—*Note*, p. 196.

The author would have been candid to have stated the page in which this term, or rather verbiage, "lymphatic irritation," is offered by Dr. Baron. As the most minute search has failed in tracing it, or any "attempt to introduce such a principle," the passage in which it may occur is so exceedingly obscure, that precise reference would be satisfactory in a future edition. The assertion in the second sentence asks no comment.

This work gives, as a description of chronic peritonitis, the history of the tuberculated disease, by Dr. Baron; and at times so little is the form of the new version observed, that it becomes transcriptive. It is said, in one sentence:—"The patient ultimately dies hectic, and exhausted." This certainly is not according to Dr. Baron's description; nor correct as to the manner of the patient's death in the tuberculated disease. In page 287, the appearances of the diseased parts in that malady, thus described as chronic peritonitis, militate against the accounts of Dr. Pemberton. This is rather extraordinary, for Dr. Gregory has spoken of that respectable Physician as "very accurately" and "admirably describing" the latter affection in his "valuable treatise." The remarks, alluded to, occur in a review of Dr. Baron's work, long since imputed to Dr. G.†

How does the author reconcile his appellative generalization with the following admissions in that review?

"For our own parts, we are inclined to think, *that there is*

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* Elements of the Theory and Practice of Physic. By George Gregory, M. D., &c.

† Medical Repository, vol. xi. pp. 140 and 141.

a tuberculous disease of the peritonæal membrane, *different from chronic peritonitis**."

And again: "We think, then, that he (Dr. Baron) has *fairly made out,*

"1. *That there is a tubercular disease,* which has *not hitherto been examined* in a comprehensive point of view; that it runs a defined course; and that its causes and treatment are involved in much obscurity.

"2. *That the doctrine of chronic inflammation of vessels is not adapted to explain this, and several morbid modifications of structure,* and that it requires further investigation†."

How very inconsistent, also, is all this self-contradiction with the next passage (page 287) of Dr. G.'s work! Thus:

"The *only* disease with which *chronic peritonitis* is liable to be confounded, is ascites, or ovarian dropsy."

This (without acknowledgment) is almost verbally Dr. Baron's diagnosis of the tuberculated disease, misapplied to "chronic peritonitis."

In page 288, last paragraph, Dr. B.'s history of the treatment is given in his words, somewhat distorted, and appropriated by the dexterous use of the possessive pronoun, to the author himself, viz. Dr. Gregory. In the Review, it is ingenuously said: "We have not had time to make the necessary inquiries into a part of medical science, in which we confess our education to have been very much neglected‡." How much perplexity and confusion is at once explained by this simple admission, which certainly affords no opening to disbelief!

When authors thus describe diseases, "sans en bien établir l'idée particulière et la véritable espèce, par les signes diagnostiques et prognostiques," they can only be addressed in the language of Molière — "A Dieu ne plaise, Monsieur, qu'il me tombe en pensée d'ajouter rien à ce que vous venez de dire; vous avez si bien discouru sur tous les signes, les symptômes et les causes de la maladie: —— et *quand il ne seroit pas, il faudroit qu'il devint,* pour la beauté des choses que vous avez dites, de la justesse du raisonnement que vous avez fait. Oui, Monsieur, vous avez dépeint fort graphiquement, *graphicè depinxisti;* tout ce qui appartient à cette maladie; il ne se peut rien de plus doctement, sagement, ingénieusement conçu, pensé, imaginé, que ce que vous avez prononcé au sujet de ce mal, soit pour la diagnose, ou la prognose, ou la thérapie."

Modern authors are rather ungracious in using the matter of others; and many are like the poet who merely mistook

* Repository, p. 141. † Id. p. 148. ‡ Id. p. 45.

writing from memory, for writing from imagination. I mean this as a general remark; but Dr. G. will doubtless take, in good part, the observation that there is a very particular coincidence between what he said on Blisters *, and the *previous* opinions of Baglivi †.

The reception of Dr. Baron's work on the Continent has been early and very favourable. An interesting analysis has been written and published by the late ingenious Dr. Albers of Bremen, in the "Salburgisch medizinich-chirurgische Zeitunger, narangegeben in Salzbug in Oesterresch." It concludes:—"The whole work is written with great ingenuity, and deserves to be studied by every accomplished Physician." It has also undergone the favourable criticism of Professor Trafuenfelt, in the Transactions of the Stockholm Medical Society.

II.

Reply to Ignotus, on the Medical Profession. — By NECTEMERE, Rochdale.

SINCE the severe strictures, on the department of the medical profession held by the Apothecary or general Practitioner, appeared in three of the late REPOSITORIES, I have anxiously waited in expectation that some more competent writer would afford a reply; but none having appeared, I will beg leave to offer the following desultory remarks:—

I agree with an intelligent correspondent (vol. xv. page 90) that, in the education and training of any youth, regard ought to be had to the views of his future station in life, both as they relate to his own advancement, and the benefit of the public. For the youth intended to practise in all the branches of the medical profession, a certain elementary course of school education is acknowledged to be necessary, and to be more classical than that of the merchant, tradesman, or mechanic; not that the whole of the youth's time is to be occupied in school learning: what he can learn at school is one thing, and what he learns from the instruction of his master, capable, from education and experience, of leading him in the path he is intended to pursue, is another. In this country it has long been the established custom to unite medicine, surgery, midwifery, and pharmacy, in one class, the most numerous, and containing the most useful Practitioners; and the qualifications requisite, since the passing of the Apothecaries'

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* See REPOSITORY, p. 365.

† Vide "De incommodis abusu vesicantium."

Act, are more legitimately defined than before; but we are told that, of all the examinations, those of the College of Surgeons, and Apothecaries' Hall, are the most trifling; a mere *vox præterea nihil!* They are conducted on much the same principles as examinations into the abilities of candidates for any other profession, requiring scientific and mental attainments: somewhat of routine questions are adopted, it is true; but is there nothing of this in the making of Physicians? no "cramming and grinding?" nothing of the kind in the thesis and its defence? It cannot be denied, however, that even this ordeal has been passed by men of very superficial attainments, though it is so confidently asserted that by-paths and artificial helps there are none for attaining to high *medical* honours. I would speak of the really learned Physician with deference and respect. The Apothecary knows his station; he unsparingly consults with, and upholds the interest and respectability of the Physician, as identified with his own; but, at the same time, repels the charge of ignorance being exclusively confined to the lower walks of the Profession. Notwithstanding the contemptuous mention of the Apothecary and his education, let it be recollected, that the time required by law for the tuition of the Apothecary is twice as long as that demanded of the Physician, who has to attend to one department only: and if it were true, which I am far from allowing, that a quarter of a year is sufficient for learning the details and arrangements of pharmacy, the pupil would have so much more time left for the acquisition of knowledge in the other branches. With the exception of refractory apprentices, (from which Ignotus is busy in drawing his arguments), I have a notion there will be few vacancies for playing at dominoes, boxing, and gossiping with the servants. The Apothecary as scrupulously holds himself bound to fulfil his engagements as any other gentleman; and what master of probity and honour would be content under the charge of allowing extravagant waste of time, if in his power to prevent it? His engagements are to forward his apprentice according to the obligations mentioned in the indenture; and to act contrary would be derogatory to his character, and inimical to his own practice and interests. A youth stationed in the family of a medical man, in full practice, will soon perceive how large a measure of acquirements is necessary in the profession of his future destination, and how difficult the attainment: if he be a boy of any parts, his ambition will be kindled; he will perceive the absolute necessity of study; and what he sees daily passing before his eyes will afford him ample scope for intellectual pursuits.

I have seen no better a scheme of education proposed, than

that now in use for the rising supply of general Practitioners. The repeal of the Apothecaries' Act, or his being expunged from the code, would be attended with no benefit to the public; for should the term of the school education at the academy or university be so much prolonged as to embrace four-fifths of the apprenticeship, what advantage would be gained over that of a continuous clinical attention to cases in the practice of a preceptor, who watches over the rising genius of his pupil, and seizes the fittest occasions for applying his illustrations and instructions?

"Nisi utile est quod facias stulta est gloria." The young mind cannot fail of being stored with practical facts; the pupil will not enter on his final studies a raw noviciate; he sees and hears nothing at the hospital, in the dissecting-room, or at lecture, of which he is in total ignorance; all have in some measure been familiar with him before; and though in theory he may not yet have soared to the sublime regions of fancy, the plain plodding habits of his master may have taught him the humble practice of deducing conclusions from their premises, and of tracing out the connexion between cause and effect, qualities sometimes grievously wanting where conjecture and hypothesis most abound. I object not to the philosophizing youth; but let him first be taught that it is necessary to lay the ground-work of mature observation, in order to become a successful theorist. Respecting the claim of the Apothecary to the title of a professional man, the late Dr. Percival of Manchester, and other writers, have held it no way doubtful; his professional rank is as legally established, and as generally acknowledged, as is the Physician's.

The measure of repute acquired by the number of years spent in academical education, is very much dwelt on by some writers; and so far as it shows that opportunities of learning have been had, it is honourable; but opportunities of themselves are no sure indication that they have been available to the purpose. Ignotus might draw his arguments from refractory students at college, as well as from refractory apprentices. "Veritas in puteo," and patience, and persevering industry, are requisite in drawing it forth: there is no patented invention to supersede the labour of literary attainments, even at college: as Prodicus relates the fable of the youth Hercules, Pleasure and Virtue are placed before us, nor can we be wholly restrained in the choice of either; but happy the youth who, like Hercules, is enamoured with the latter. Dr. Adam Smith describes the Apothecary as the Physician of the poor in all cases; and of the rich where the distress and danger are not very great. Dr. Young, in

his Introduction to Medical Literature, and Dr. Hamilton, in a well-written Essay in the Edinburgh Journal, are both of opinion, that the Apothecary would not benefit by an academical education: such process would entail on him a character so ambiguous, that the poor could not, and the rich would not, employ him. The poor, as well as the rich, ought to have medical aid ensured to them at such price as they can afford; but if none, unless the most expensively educated, are to practise medicine, and they are to be allowed an adequate remuneration fee, it is obvious the labouring classes, who cannot pay such fee, must be attended gratis, either on the part of the Physician or the public. Whether Mr. Owen, or any other public projector, has ever taken this into consideration, I know not; but to supply the great mass of the population by public or private charity is a bold undertaking: no degree of philanthropy in the Physician could effect such a purpose: indeed many of the working class have too upright and independent notions to fall into such a scheme; and though not able altogether to compensate a Physician, they would spurn at the idea of being treated as parish paupers; and any short-sighted policy, that would tend to fritter away their notions of self-support, might, even in this narrow field, lay the foundation of a widely extended mischief, claiming the consideration of the political rather than the medical economist: but as one of the measures proposed for supplanting the general practitioner, it is not irrelevant to the present question.

With respect to the mode of charging, I shall again have recourse to the opinion of Dr. Adam Smith, that it is only fair that the Apothecary fix such a charge upon his medicines as shall compensate him for his education. The plan of over-charging, it is well known, does not obtain in the country; and to assert that the chief design of the Apothecary is to "contrive how much physic can be swallowed in the least time," is about as liberal as it would be to charge the Physician with a want of all consideration but that of multiplying visits, and fingering the fee. The chief burthen of gratuitous attendance on the poor is borne by the Apothecary; the calls of humanity, if not of duty, demand his prompt assistance, in cases of emergency, at all hours and seasons, where it would be worse than loss of time to wait for a promise of payment from that callous-hearted being the overseer: in numerous such cases the Apothecary knows that he is the only hope and resource of the afflicted pauper. Wherein consists the wide difference between the Apothecary being paid for his opinion, in the sale of his medicines, and attendance, and the attorney at law, (doubtless a *bonâ fide* professional man), with whom the Apothecary may be said to hold a com-

parative station? The attorney is paid for being present at the sealing and execution of his writings, instructions respecting his clients, his written words by the score; and some mayhap that never yet smelt of the lamp; he has no fear of offending his more learned superiors, the counsellors and barristers at law; perhaps they are not of such a "genus irritabile" as to bear no rivals near the throne; the attorney is also guarded, by legislative acts, from any intrusions from low empiricism, in such strict limitation as cannot be evaded. Those who have the deputation to look after their rights and privileges are not like the Apothecaries' guardians, who, to use a common phrase, would, I fear, rather sleep than talk.

We come now to the Apothecary's treatment of his apprentices; so bad, it is asserted, as to justify retaliation on the part of the youth. I shall not, at present, dilate on the tendency of such unqualified expressions: the writer, by the whole scope of his arguments, must evidently not be aware, that apprentices as regularly read the journals as their masters: if he were, I will do him the justice to suppose he would not have used such expressions; for what more easy than to persuade a youth, however well treated, that his master is a tyrant, disregardful of his duties and obligations, and himself a great sufferer thereby? As far as my medical acquaintance extends, and that is not very confined, these are the facts. The young person is first grounded in the rudiments of the Greek and Latin languages, and his future opportunities of prosecuting his studies are continuous and inviting. No master, as he values his own interest, will throw obstacles in his way; but will cherish, rather than depress, that spirit in his pupil. I seriously affirm that a country Surgeon-Apothecary's apprentice has a situation eminently well calculated for improving his mind; he has no manipulations to perform but what he may accomplish in his drawing-room dress; all the laborious parts of pharmacy, unless just so far as to show him the processes, are performed to the hands of the Apothecary by the druggist. No professional man, according to his means, purchases so many books as the Apothecary, and none, that I ever heard of, denied his pupils free access to them. There are medical libraries existing in almost every town, and the books are seen equally by the master and pupil; the apprentice is introduced, in the most populous parts of the country, to the exercise of Physic, Surgery, and Midwifery, under the eye and guidance of his master,—to the observance of diseases under the very form and pressure they will assume in his own actual practice, unsophisticated by the intervention of artificial arrangements. As to Midwifery, no adequate substitute can be found for a country apprenticeship in this depart-

ment; pages might be filled with the numerous and ludicrous blunders of those who have attempted it from a full course of lectures, instead of a full term of practical pupilage. Want of distinction betwixt town and country practice, and building upon the exceptions, instead of the general rule, have led to great misconception with writers on this subject, and, in my opinion, fix the nature of the error. If the conduct of the apothecaries in London, or other large towns, be such as is described by Ignotus, " et credat qui vult," I am confident, at least, that it is a very distorted picture of country practice; and every Surgeon must very fairly feel himself lessened by the miscellany, or called upon to refute its calumnies.

III.

Observations on Practical Pathology.—No. II. *Case of Organic Amaurosis complicated with Phthisis Pulmonalis, Disorganization of the Spleen, and the Phenomena of Meningæal Apoplexy; with Notes of the Dissection.* By James Kennedy, M.D., of Glasgow.

Ophthalmological writers regard amaurotic blindness as being characterized by a diversity of pathognomonical symptoms; and, to each of its forms, assign an appropriate treatment. Towards the close of last century, Venceslas Trnka de Krzowitz*, the learned and laborious professor of Buda, analysed, in an useful compilation, the doctrines of preceding writers on the philosophy of this malady; and, since that time, the subject has engaged the attention of many eminent oculists. Among others, Callisen†, Schmucker‡, Richter‖, and Scarpa§, have considered its modifications under discriminative arrangements founded on the views they individually entertained of its nature and influences. Professor Beer¶, of Vienna, describes it under the following classification:—1. Amaurosis from inordinate distribution of nervous energy. 2. Amaurosis from morbid organization. 3. Amaurosis from imperfect organization. 4. Amaurosis

* Historia Amauroseos, omnis ævi observata medica continens, 8vo. Vindobonæ, 1781.

† Systema Chirurgiæ Hodiernæ, 2 tom. 8vo. Hafniæ, 1798.

‡ Vermischte Chirurgische Schriften, band 2, 1786.

‖ Anfangsgrunde der Wundarzneykunst, band 3; also Dissertatio de Amaurosi, Gottingæ, 1793, 4to.

§ Osservazioni sulle Malattie degli Occhi, folio, p. 243, Pavia, 1801.

¶ Lehre von den Augenkrankheiten, als Leitfaden zu seinen öffentlichen Vorlesungen entworfen, 8vo. Wien, 1813-17.

from complication, wherein the symptoms of the three first kinds are associated. By Dr. Hoarau*, who objects to the distinctions of Scarpa, all its varieties are comprehended in three general heads:—1. Idiopathic amaurosis from local plethora or local debility, from organic lesion of the optic nerves or of parts contiguous to them. 2. Symptomatic amaurosis from general plethora or general debility, from lesion of the functions of an organ or viscus, or from lesion of general sensibility. 3. Metastatic amaurosis from retrocession of gout, suppression of habitual or accidental discharges, or the repulsion of cutaneous inflammations or eruptions. The observations of Dr. Cooke†, Dr. Vetch‡, and Mr. Travers‖, on the causes, diversities, and treatment of the disease, are particularly interesting and valuable, from the perspicuity of their doctrines, and the excellency of the practical principles which they unfold. Mr. Travers' arrangement of it into functional, organic, and metastatic amaurosis, is simple and comprehensive, and infinitely preferable, for all useful purposes, to the multifarious and minute distinctions of the continental oculists. The functional is susceptible of cure, but it may degenerate into the form which alteration or destruction of organic texture maintains. He regards the true organic amaurosis as being absolutely irremediable. The subsequent history exhibits the disease as determined by partial disorganization of the optic nerves, and co-existent with extensive visceral lesion.

Case.—Mrs. Miller died at Dunning, in her twenty-sixth year, after having given birth to three children. Her person was of the middle stature, and well proportioned; her complexion fresh; her eyes dark-hazel, and expressive of intelligence. She possessed an ardent temperament; her constitution was firm and vigorous. The tenour of her health, till the commencement of her fatal illness, had experienced few interruptions.

After a tedious and afflictive labour, which required to be completed by instrumental assistance, she was delivered of a lifeless infant. From this time forward, she became afflicted with frequent paroxysms of acute headach, accompanied by lancinating pains in the left side, and by an unusual proneness to accessions of morbid sensibility.

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* Dissertation sur l'Amaurose, 8vo. à Paris, an XI.

† Treatise on Nervous Diseases, 8vo. London, 1819.

‡ Practical Treatise on the Diseases of the Eye, 8vo. London, 1820.

‖ Synopsis of the Diseases of the Eye, and their Treatment, 8vo. London, 1820.

In the early part of her second pregnancy, her mind was violently agitated by a sudden fit of passion, which terminated in a severe cephalæal affection, marked by distinct symptoms of irregular action in the vessels of the brain. On this occasion, however, medical assistance was not required. Ever afterwards, the cephalæa, with vertigo and ringing of the ears, was reproduced by the slightest causes of mental emotion.

Three weeks subsequently to the last-mentioned event, while seated on the damp ground during a field sermon, she first perceived an impairment of her vision.

Her second labour was natural, but protracted; her convalescence not unfavourable. From being occasional, her headach now came to be incessant and oppressive: it was chiefly confined to the temporal and frontal regions. Dimness in both her eyes gradually increased. Pain in the left hypochondrium almost constantly prevailed, with its usual concomitants, disturbance of the circulation, disrelish of aliment, constipated bowels, and irregular breathing. Her strength and spirits soon became depressed, her person emaciated. In this state, June 1819, she was first placed under my care.

This was a case of imperfect amaurosis, induced by excessive determination of blood through the encephalic vessels, and complicated with visceral congestion. It was treated, as usual, with topical leechings, venesection, arteriotomy, emetics, nauseating and mercurial purgatives, lotions, blisters, setons, and frictions of the cervical spine. By such means, the intense headach was perfectly subdued; but they contributed nothing to restore the defect of vision, or to remove the symptoms of latent abdominal disease.

In September following, this unfortunate young person, on being exposed to the influence of cold and wet during a journey to visit some friends at a distance, was seized with acute pneumonic inflammation. This attack yielded only so far to the effects of the ordinary treatment as to subside into a chronic form, which was unfortunately neglected for many weeks after her return to her own residence.

Some time previously to this seizure, she had become pregnant, and her complaints now manifested the characters of pulmonary phthisis, whose progress was scarcely ever retarded by a diversified exhibition of the usual remedies.

In April, 1820, by an easy and rapid labour, she gave birth to a sickly female infant. From this time forward, her phthisical symptoms became more urgent, their progress accelerated: and, after having endured many alternations of dyspnœa, insomnolency, coughing, reactions of the circulation, colliquative sweats and diarrhœa, purulent expectora-

tion, headach, lancinating pains in the left hypochondrium, and hectic fever, which medicine could not remove, and seldom alleviate, my patient, on May 16, sunk into a state of comatose insensibility, which continued till the 18th, when she expired in an orthopnœal paroxysm, wherein she appeared, during several hours, to suffer all the agonies of suffocation.

At an early stage of her complaints, this young woman ceased to be able to recline on her left side, and her countenance assumed a sallow hue. The textures of her eyes were never changed, but they had that appearance which is present at the commencement of measles and other eruptive diseases. To external observation, their state was quite natural, except that the contractions of the pupil were languid, and the sclerotics marked with a faint yellow tinge, which deepened as the disease advanced. After the third leeching, the dimness of either eye remained stationary: the intense headach, till toward the close of her sufferings, seldom returned. Irregularity of her uterine functions never supervened.

Dissection.—Emaciation of the body extreme; feet and lower limbs slightly œdematous; some livid spots on the scapulary and lumbar regions, and course of the glutæal muscles, where a small portion of the cuticle also was abraded.

Abdomen.—The omentum extended into the pelvis, overspreading the bowels in all their convolutions. Its hepatic portion was dingy white, and corrugated as a half-dried serous membrane. The splenic retained traces of inflammatory excitement under every form: it was florid, gangrenous, sphacelated. Patches of vascular congestion, deepening from vermillion to the deepest purple shade, remained in those parts of the alvine tube, meso-colon, and peritonæum, which approximate the left hypochondriac region. The jejunum was not marked by any distinctive redness, and the intestinal textures were, in general, pale and thin.

Without being tuberculated or essentially disorganised, the liver had lost its characteristic glossiness: its left lobe was preternaturally soft, and could be easily torn: its colour had degenerated into a pale unshining brown, and its vessels were turgid. The gall bladder was unusually small, and its coats measured two lines in thickness. The villous was smooth, and deprived of all resemblance to a honey-comb. It did not contain more than one dram of bile, which was exceedingly viscid, denser than syrup, and of a vivid golden colour.

About one ounce only of a frothy, yellowish, muculent fluid, remained in the stomach. That part of its cardiac portion which is adjacent to the spleen, together with its peritonæal connexion, had become sphacelated over a space

whose long axis was four inches. Its serous membrane, in this place, was black, and could be easily rubbed off with the finger. The mucous and muscular were livid, and approaching to the same state of disorganization.

The pancreas was five inches long; its substance unnaturally soft; its colour a palish impure brown, without any trace of redness, and becoming darker towards its left extremity. Its glandular structure could not be recognized in the margins of a longitudinal section. The meso-colon around it was flabby and discoloured, so as to exhibit a foul brownish gelatinous mass. The spleno-pancreatic peritonæum was livid, and easily lacerable.

Amid the organic lesions which the left hypochondrium contained, those of the spleen were not the least remarkable. It had acquired a softer consistence than is natural, and a much darker colour, being pulpy, and sooty black. Both its surfaces were flattened, its form oblong, its length nearly four inches. When pressed, it displayed manifest elasticity, and felt as a tensive membraniform cyst, replete with a thick fluid. The proper splenic coat had been obliterated; the serous alone remained, but its structure was imperfect, and it could be ruptured with facility. The internal textures of the viscus were converted into an inorganic homogeneous mass, black, with an indistinct shade of blue, and offensively fœtid. This mass was pulpy and dense as animal jelly, but untenacious. When exposed to atmospheric action or slight pressure, it experienced a spontaneous solution, and yielded, in considerable proportion, a thickish inky fluid, in which many minute, dark, granulary particles were suspended. It did not, however, impart a permanent stain to linen or the hand, but was readily washed off with cold water. About three lines of the splenic artery, at its termination, was impervious and violet-coloured.

When the right kidney was incised, its various textures might be distinguished, but they were paler and softer than is common. The left was surrounded by flabby semi-gangrenous cellular substance, altogether destitute of adipose matter. The kidney itself was a pale brown, loose, spongy body, in which the renal tissues could not be discriminated. Many of its vascular ramifications, however, were apparent, and traceable by dissection. An irregular crimson patch, deepening at its centre into purple, marked that part of the diaphragm which overarches the spleen.

Pelvis.—The uterus had nearly regained its natural dimensions. Patches of a pulpy substance adhered to some parts of its internal surface, and the distribution of its muscular fibres and blood-vessels was very distinct. The surfaces of

the ovaria and Fallopian tubes were beautifully vascular: the urinary organs displayed no trace of disease.

Thorax.—Where its surface is contiguous to the left pulmonary lobes, the pericardium was much thickened; and, as well as the corresponding pleura, had acquired a dim violet colour. The heart was not unhealthy; its valves, tendons, and muscles were strong and compact. The aorta measured fourteen lines in diameter at the centre of its arch, and the vascular system, in its chief branches, was unusually capacious. The arterial coats, however, were not distinguished by any effects of pre-existent morbid action.

Many firm pseudo-membranous bands intimately connected the left lung to the contiguous surface of the costal pleura and diaphragm, from which it required to be carefully dissected. Both its lobes had been destroyed by the formation of an enormous abscess, whose cavity was inversely conical, and larger than the capsule of an ordinary human heart. It communicated with the left bronchial tube, by means of a ragged orifice capable of admitting a thick-barrelled quill. This abscess, over all its internal surface, was ulcerous, studded with numerous tubercles, and thickly overspread in many places with a layer of purulent matter. The ruins of the pulmonary organ, which constituted its sides, had acquired a glandular consistence, and varied in thickness from five lines to one inch. The right lung contained many ulcerated tubercles, and its pneumonic structure was hepatised. When laid open, its superior air-cells were infarcted with muco-purulent matter and frothy ichor, thick, ropy, and nauseabund.

Cephalon.—Sections of the epicranical teguments being made in the usual manner, globules of thin sero-sanguiniform fluid oozed from the incised margins; and, on the flaps being reverted over the frontal and occipital bones, the corresponding surfaces presented a pale sanguine blush, induced by watery blood issuing from innumerable pores. The same phenomenon appeared on the encephalic face of the calvaria, which adhered so closely to the external meningeal membrane of the brain, as to be with difficulty separated. Excision of this membrane (*dura mater*) exhibited it in a state of high vascular congestion, its vessels, both arterial and venous, being distended with liquid blood. Those of the central (*pia mater*) were similarly engorged: the internal (*arachnoid*) contained many pale-red streaks, fine as a hair, and disappearing temporaneously under pressure.

The substance of the brain itself was much softened, particularly its right hemisphere, through which many purplish red spots, resembling miliary granulations, were interspersed.

In each of the lateral ventricles were nearly three drams of dark watery blood, the deposition of which might be ascribed to exhalation, as no trace of rupture in any of the contiguous tissues could be detected. The other ventricles were nearly filled with turbid serum, and there was lymphatic effusion to a small extent under the arachnoid membrane, between the convolutions of the brain. All the cerebral and cerebelline vessels were loaded; they seemed enlarged, and the fluid they contained could easily be displaced by compression; but, on this being withdrawn, the parts soon resumed their original turgescency. Both the carotid arteries, especially where they approximate the course of the optic nerves, were dilated beyond the ordinary size, but in all other respects preserved their natural state. The thalami of the optic nerves were firmer, larger, and more spherical than exists in their usual conformation. Several faint-red speckles were scattered over their surfaces. The optic nerves themselves were greatly enlarged and softened, resembling, on exposure, two gelatinous inorganic bodies, each of which was superficially flattish, and seven lines in breadth. Externally, the delicate white appearance of their structure had been changed into a dark unglistening gray. They were enveloped in a cyst, apparently replete with aqueous fluid, whereof, on their being divided, about a teaspoonful escaped in the form of pellucid lymph. A morbid tissue was also found, in each nerve, to inclose the ruins of its proper substance, which retained not more than half of its ordinary size. Shall we regard this morbid tissue as a transformation of their neurilematous membrane, by the influences of chronic disease? It was thickest at the central extremity of the nerves, and ceased to be present when they enter the ophthalmic orifices of the sphenoid bone. The surrounding portion of the brain was, to a considerable extent, soft and pulpy, with its vessels augmented in calibre, and turgid with uncoagulated blood. Little alteration from their natural state was perceived in the cerebelline textures, except their being distinguished by partial traces of increased vascular action.

Remarks.—The particular distribution of the *vascular* system, in the size and capaciousness of its chief ramifications relatively to those of the other *vital* systems, may have originally predisposed, in this person, the sanguiferous more than the nervous and lymphatic organs, to susceptibility of irregular action. This state, therefore, may be viewed as having given original tendency to her splenic affection, her amaurotic defectiveness of vision, the development of pneumonic inflammation, with its ultimate consequences, tuberculous and ulcerous disorganization of the lungs, and to the

apoplectic repletion of the cerebral blood-vessels discovered after the extinction of life.

Her first labour was rendered painful and dangerous by the supervention of inordinate uterine action, of violent convulsive movements, and suspension of the perceptive faculty. By the causes of these pathognomonical manifestations it is, perhaps, probable that a structural injury, through the intervention of excessive vascular action, had been primarily inflicted on the spleen, which acts in reservatory subordination to the other assimilant organs. By the same influences, also, the vessels whose agencies are exercised in maintaining the textural elements of the brain and optic nerves, had experienced a functional lesion, the effects of which soon became apparent, and continued to operate during the remainder of the patient's days. Parturition, indeed, is ranked, by the best ophthalmologists, among the sources from which amaurosis originates. Weller, who gleans from all his contemporaries, omits, it is true, to assign it a place in his etiology of the disease; but, according to Scarpa*, defective vision is remediable when produced by the convulsions and efforts of difficult labour; "quelle prodotte da convulsioni e da sforzi sotto un parto laborioso." From frequent observation, Demours, the son†, places "les liaisons sympathiques, notamment les affections spasmodiques de l'utérus" among the causes of amaurosis, "par hypersthénie," or from "pathological exaltation of sensibility in the immediate organ of sight, perhaps the effect of inflammation of the optic nerve." Portal‡, the venerable anatomist, impressed with a conviction of their accuracy, advances these practical remarks: "Excessive dilatation of the vessels of the optic nerve and retina, determining proportionate compression on the parts, produces amaurosis, which may be without complication, may precede apoplexy, or may be its result. Such forms of this affection sometimes of their ownselves constitute true *partial* apoplexy. I have seen it" (amaurosis), he adds, "supervene in a female during her first labour: in her second, she became deaf; in her third, nearly dumb. On these occasions, venesection was not practised. During her subsequent pregnancies, however, I employed sanguineous depletion for her relief; and, while no new symptoms occurred, the original ones were perceptibly ameliorated."

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* Saggio di Osservazioni e d'Esperienze sulle principali Malattie degli Occhi, folio, Pavia, 1801, p. 245.

† Traité des Maladies des Yeux, à Paris, 1818, tom. i. p. 384.

‡ Cours d'Anatomie Médicale, à Paris, 1803, tom. iv. p. 158.

Exposure to cold and the humid atmosphere evidently determined the pulmonary vessels, in my patient's case, into that state of overaction on which true inflammation depends. To this they were predisposed by their disproportionate organization. Her disease commenced under an acute character; and though subdued by remedial applications into an acute form, it pursued an insidious course, and its effects were as certain as they were destructive.

To the same origin, also, may be retraced the unequal proportion of blood poured into the encephalic vessels. Their due re-action seems never to have been established subsequently to the first labour; and this disbalancement of the circulation would increase as its duration was prolonged. The ultimate turgescency of the brain, by defective respiration, or whatever means determined, may, therefore, be regarded as a chief agent, effective of the central compression and its consequent indications — absence of perception, irregular nervous movements, and death.

IV.

Observations on the Use of the different Preparations of Iodine as a Remedy for Bronchocele, and in the Treatment of Scrofula.—By Sir A. Halliday, M.D., Domestic Physician to His Royal Highness the Duke of Clarence, &c., St. James's Palace.

In the course of the last year Dr. Coindet of Geneva, a Physician of great practice and distinguished reputation, first directed the attention of the Faculty to the very extraordinary powers of *iodine*, in the treatment of bronchocele, the goître of Switzerland. Having prescribed it with success in a number of cases, he communicated the result of his practice to the Helvetic Natural History Society, in a short paper which was read before that body on the 25th of July, 1820, and afterwards published in their transactions.

Though bronchocele is by no means a disease of such frequent occurrence in this country as in some of the Swiss Cantons, it is still of sufficient importance to attract attention; and as it was natural to suppose that a remedy possessing such wonderful powers in this complaint might be employed in the discussion of other tumours of an indolent and local nature, which are produced in scrofulous habits, and are but too common among all classes of society, in every corner of the British dominions, it has been tried by several British Physicians in the latter complaint. Burnt sponge has long been

one of our best remedies in the treatment of scrofula; and as *iodine* forms a constituent part of that preparation, there is now reason to conclude that it was the only portion of the sponge that acted specifically in this disease. This, so far as my experience goes, is abundantly confirmed by the good effects of the iodine presented in a more simple form; and in the few cases in which I have had an opportunity of prescribing it, either for the discussion of scrofulous tumours, or in counteracting the constitutional disease, I have never failed in effecting a perfect cure, or producing considerable amendment. I am, therefore, anxious that this medicine should be brought into more general use, and its apparently wonderful anti-scrofulous powers fairly put to the test.

Iodine itself is an alkaline substance, inducing a local, inflammatory, or rather corrosive action. It is little soluble in water; but alcohol in proportion to its strength will dissolve from one-ninth to one-sixth of its own weight of this salt. It has, therefore, been exhibited in tincture, and to remove all doubt as to the strength of the preparation prescribed, Dr. Coindet directs 48 grains of iodine to be dissolved in an ounce of spirits of wine, of the strength of 35°. Of this tincture he gave, at first, ten minims three times a day, increasing the dose, after the first week, to fifteen and sometimes to twenty minims, in half a wine-glassful of capillaire and water. The Doctor very rarely exceeded the latter dose. He remarks, that in the course of a week or ten days from the commencement of this treatment, the integuments became less tender to the touch, and the tumour began to soften. The softness gradually increased, while the tumour or tumours became more circumscribed and distinctly marked, and at last disappeared altogether. It was found, however, that from inattention, or other circumstances, disagreeable symptoms now and then occurred; and these having been magnified, some degree of prejudice was raised against the use of the remedy; but as these symptoms proceeded from an abuse, and not from a proper and cautious use of this powerful medicine, they ought not to be taken into account by the regular Physician. Dr. Coindet, in a second paper, published lately in the "Bibliothèque Universelle," has fairly met the question, and shown the absurdity of the alarm which has been excited. The symptoms, which he enumerates as *iodynic*, are an acceleration of the pulse, palpitation, frequent dry cough, with sudden wasting and prostration of strength, while the appetite is voracious and craving. These symptoms disappear as soon as the medicine is discontinued, or are easily removed by the use of milk diet, tonics, and anti-spasmodics. But without producing any of these symptoms, it has been ascer-

tained that, in many cases, the stomach would not bear the simple tincture; Dr. Coindet, therefore, made experiments with other preparations of the *iodine.* He found that the salt was very powerful in decomposing the aqueous solution of the alkalies; and that when *iodine* was added to the solution of caustic potass, the water was decomposed, and a portion, uniting with the oxygen, formed an *iodate*, while another portion, uniting with the hydrogen, formed a *hydriodate* of potass, and that these neutral salts possessed none of the corrosive qualities of the iodine, while they retained all its virtues as a remedy for the cure of *goître.* The preparation which he has, therefore, used latterly, is the hydriodate. The iodate he has not yet tried. He has not found that the hydriodate has produced any of those disagreeable symptoms attributed to the use of the tincture; and on this account alone he considers it preferable. I have ordered the tincture with success in three cases of scrofulous tumours, and have heard of its being prescribed by a friend in two remarkable cases at Edinburgh; but since the appearance of Dr. Coindet's second memoir, I have preferred the hydriodate more particularly, as it has been discovered that the crystals of hydriodate, made into an ointment, and rubbed in like the unguentum hydrargyri, produce even a more rapid cure than when the medicine is taken internally. In local and indolent tumours I would always prefer the ointment; but in the treatment of the constitutional disease, or where scrofulous sores exist, it must be given internally; and in such cases, the Physician ought to begin with ten or twelve minims of the saturated solution of the hydriodate three times a day. The only difficulty I have met with is in ascertaining the strength of the hydriodate in a liquid form. I am not, as yet, aware of any just criterion to go by. The ointment I have ordered is made of the crystals of hydriodate, evaporated to dryness, (taking care that the alkali is well saturated), half a dram to an ounce of hogs' lard, and about the size of a filbert of this ointment to be rubbed in upon the tumour morning and evening. After eight days, the action usually begins to take place. I have found great difficulty in procuring the *iodine* here, and still more the hydriodate of potass, though the latter is easily prepared when the iodine is to be had. I wish they would begin to make it at Apothecaries' Hall, because I am confident it will be found to be a remedy of some importance. The iodate, that is, the salt formed by the combination of iodine with oxygen, is easily crystallized, and little soluble in water, while the hydriodate can scarcely be kept from deliquescing; there is, consequently, little difficulty in separating the one from the other, when they are

formed by the addition of iodine to the liquor potassæ, which takes place, as already stated, by the decomposition of the water of solution. I hope these remarks will draw the attention of some of the readers of the Repository to the subject, and induce them to make trial of a remedy which promises to be as powerful in eradicating scrofula as ever mercury was in curing syphilis.

V.

Case of Abscess of the Spleen communicating with the Stomach and Umbilicus. — By H. H. Hickman, Member of the Royal College of Surgeons, London, &c.

Sarah Harris, — æt. 15, — (a patient of my friend Dr. Thorp), of a scrofulous habit, about two years ago, was seized with a pain in the left hypochondrium, which was soon removed by remedies thought most proper. In about twelve or fourteen months after this, she again applied to him, and was found labouring under every symptom of general dropsy; she was again relieved, but not made well; and at length an ulceration appeared at the umbilicus, which discharged abundantly a thin glairy fluid. About three days before death, I saw her in excess of agony, evidently produced by the complete obstruction which had taken place in the intestines, resisting every possible remedy: I passed a probe upwards into the wound, at the umbilicus, its whole length forming an acute angle with the spleen; but the subsequent torture induced me to desist from its second introduction. We concluded that an abscess was formed, communicating with the stomach, as particles of undigested food (currants) had been observed on the dressings; and, from existing symptoms, that the further administration of remedies would be ineffectual. In three days she died, and we obtained permission to examine the body, when the following appearances presented themselves: — On making an incision through the abdominal muscles, I could not introduce my finger into the abdomen, owing to the firm adhesions which had taken place between the peritonæum and its contents. I now put aside the scalpel, and laid bare the whole of the abdominal viscera, by means of a spatula, in order to make the dissection more clear, finding that the liver was the only organ possessed of the slightest appearance of health; to find the omentum, or a trace of it, was utterly impossible. I now proceeded to examine the seat of the disease. The transverse arch of the colon was callous and obliterated, so that the smallest probe

could not be passed into it, adhering firmly to the inferior margin of the substance of the liver. The stomach I found externally and internally in a state of universal ulceration, adhering to, and communicating with, the spleen, which was a mere sac, containing pus and undigested food; out of this sac it passed through the layers of the muscles to the umbilicus, so that all the food was either rejected, or took this course. The small intestines were so complete a mass of disease, and of so small diameter (a quarter of an inch) that they could scarcely be delineated. The mesenteric glands were perfectly callous, and of large size; on dividing them, I found in each a small concretion, the consistence of chalk, and similar in appearance. I next turned my attention to the blood-vessels; and found the whole of those in the abdomen greatly enlarged, particularly the renal, in the left of which there was an aneurism, about an inch and a half in diameter, formed just at its superior angle, where it is given off from the aorta. I opened the thorax and cranium, but found no appearance of local disease, excepting that the heart was preternaturally enlarged.

VI.

Hypochondriasis. — By Henry Perry.

If the vapours are hideous by *name*, how much more so must they be to him who unhappily is under their influence! his mind becomes tormented by what he conceives to be real miseries, while the sceptic would laugh at his notions as phantoms of fancy, and treat the whole as mere idealities. The unfortunate individual, who is thus assailed, feels at every pore that something unhappily will accrue to him from the merest trifle of impression made: thus, should an insect's sting produce but a slight irritation, his thoughts carry him so far as at once to make him imagine that he may probably, by such an event, be deprived of that extremity on which it is observed. He becomes similarly disconcerted from any injury, *however slight*, so that at length he cautiously guards himself from what he considers as effects tending to undermine his happiness. He is apprehensive should he experience even what by other men would be considered as temporary inconveniences, that he is labouring under a disease of a serious nature; he tells us of symptoms, as if such were *really* present, and points them out as direct anomalies. To attempt to argue him out of such persuasions, would be only to insult his understanding; or to tell him with frankness our

opinion of his malady, would have a similar effect. He would despise us for what he would deem ignorance, and call in for advice others, who would listen with avidity to his recital. His mind at length (from such prepossessions) actually kindles a *real* disease, and we shall have to combat such a one as will be difficult to subdue. Only one point is left us as a resource; we must strive to gain upon the esteem of our patient, and to establish ourselves in his confidence; we must not betray impatience whilst he is describing to us his complaints; but attentively listen to every thing he states; we must appear anxiously to inquire if these are the total of his sufferings? and then, with precision, argue upon his case; we must teach him to consider, that we feel confident in successfully treating his disease, if he will but strictly follow the injunctions we intend setting before him, as well as steadily and constantly take the medicines prescribed; we must hold out to him the fairest prospects of eradicating his disease, and exert our ingenuity to the utmost to make him sensible that, on our part, nothing shall be wanting. We shall now find that the mind of our patient is in our hands, and the fast keeping of this must be our only study; *he* will consider that he has at length met with individuals of research, and persuades himself that under such hands he will be properly treated. The sequel will prove the truth of these principles; we shall have the pleasing satisfaction of witnessing the good effects of diverting his mind from thinking on what is likely to accrue from his maladies; and soon shall we restore to society at large, a man who most probably may prove to be both an useful, as well as an instructive member.

VII.

On a Mode of pursuing Anatomical Studies in the Country.

By Mr. John Higginbottom, Surgeon, Nottingham, and Member of the Royal College of Surgeons of London.

It is unnecessary, in the present day, to state the importance of a knowledge of anatomy to the Surgeon and Physician. We have the highest authority, both ancient and modern, for the necessity of this knowledge, and it is needless to prove that which is admitted by all sensible men. I shall, therefore, merely refer my reader, on this subject, to the interesting works of Gregory and Cabanis, in which he will find the value of anatomy duly appreciated*.

* See also Celsus, as quoted on Mr. Abernethy's Ticket for Anatomy; Sine anatomia, trunca et debilis esset medicina.

The object of this communication is to suggest to those country Practitioners, who are anxious to renew their anatomical knowledge, some measures, by means of which this acquisition will be made more practicable and easy to them, in their absence and exclusion from other and better sources of information in this department of study. It is a subject which has engaged much of my attention. I have myself felt the most poignant regret in being deprived of the means of pursuing anatomy; and I have felt this regret in a still greater degree, when I have reflected that my apprentices would leave me at the age of twenty-one, without even the rudiments of that knowledge which must be their groundwork in surgery during their future lives. In general, if apprentices have taken the opportunity of learning osteology from books and the skeleton, and the situation of the viscera on occasional examinations, they have little or no more knowledge of anatomy; and that of the arteries, the most important of all, is inaccessible to them.

The first suggestion I would offer, is that of the importance of dissecting still-born infants. Numerous opportunities of obtaining still-born infants occur in the practice of every accoucheur or midwife; neither the Surgeon nor his apprentice can, therefore, long fail of thus obtaining a *little subject*, which will display to him, *in miniature*, all, or almost all, that anatomy can teach. I feel persuaded that every country Practitioner or apprentice (and to apprentices I would suggest this plan in a particular manner), who shall thus begin, or even renew, his anatomical studies, will be highly gratified with the result.

It is to be borne in mind, however, that the most important part of anatomy to the operating Surgeon, *must* be learnt from the adult subject; I allude to *relative situation*, the substance of surgical anatomy. With the view of rendering this acquisition practicable to the country Surgeon, I would suggest, in the second place, the following plan, which I have myself adopted. It is that of procuring a subject from London, and of preserving it in proof spirit for dissection. A cylindrical, or rather oval vessel, is to be made of tin, of the smallest dimensions to admit the subject; it is to be covered with a lid, and secured by a padlock. If properly made, a few gallons of proof spirit are sufficient to cover the subject; which may, by this means, be preserved for any length of time, giving every opportunity for dissection even in the hurry and interruption unavoidable in practice. I am now dissecting occasionally an adult subject which I have had two years and a half preserved in this manner, which is

as fresh as ever, and more pleasant to dissect than when I first had it. During the progress of the dissection, the subject is immersed in the spirit, taken out and allowed to drain, and again immersed as required. Thus the body is kept perfectly fresh, and the spirit is preserved from much loss. To assist in these removals, a cord and pulley may be attached to the ceiling of the dissecting room.

After the dissection is completed, the same vessel and spirit answer the purpose of preserving the *wet* preparations *for future reference,* and thus the Surgeon is in possession of a valuable dissection, which far surpasses in utility any dry preparation; for from this he can derive, at any time, a knowledge even of *relative situation.*

I think it right to add, that the total expense of this course of anatomy is not more than ten guineas; the dimensions of the tin box may be, for an adult subject, about two feet six inches in depth, one foot four inches the major diameter, and one foot the minor diameter, and the quantity of rectified spirit about three gallons.

To these observations I would add the recommendation to all students of anatomy, in London or elsewhere, that they should take the opportunity, during their dissections, of preparing for future reference, after the course of their studies is terminated, not a dry preparation of the arteries, but a careful dissection at once of the arteries, nerves, and muscles, to be preserved in spirit in the manner I have just mentioned. Such a dissection will be useful to them as long as they live; whilst the possession of a dry preparation is, at best, of little utility, and, as far as relative situation is concerned, absolutely useless, or even hurtful.

VIII.

A Case of Obstinate Constipation of the Bowels relieved by an Injection of Spirit of Turpentine, when other Remedies had failed. By Richard Williams, Surgeon at Aberystwyth, Licentiate of the Society of Apothecaries, and Surgeon to the Aberystwyth Dispensary, &c. &c.

On the 31st October, 1820, I was requested to visit Mr. D., about thirty-seven years of age, and resident eleven miles from Aberystwyth.

I learnt that he had been ill ten days, during which time he had had no stool, and vomited every thing he took. He

had had little or no sleep, complained of great thirst, and pain, though not violent, in the right iliac region. His abdomen was tense and somewhat distended, but not very painful when pressed upon. Pulse 80, small and weak; almost constant hiccup; great anxiety of countenance. He had been bled freely from the arm, and tried salts and castor oil. The bleeding, he said, gave him no relief, and the latter were immediately rejected.

Finding his stomach in such an irritable state, I administered the following enema :—

℞ Magnes. Sulphat. ℥j.
Ol. Ricini. ℥j. Infus. Sennæ, ℔ss. M.

It remained up, but produced no effect, and was repeated in the course of two hours with double the quantity of salts, and a pint of the infusion of senna, without any benefit.

I gave him a bolus of four grains of calomel and half a grain of opium, and afterwards an effervescing saline draught, with ten grains of cathartic extract and four of calomel, as the first dose had been thrown up. I was now obliged to leave him late at night, without having afforded him any relief.

I returned early the next day, November 1st, and found him much the same as yesterday, having pain in the right and left iliac regions, increased by pressure. Believing the obstinate state of his bowels to arise from spasm, I ordered him to be put into a hot bath for twenty minutes, to have his abdomen fomented with chamomile, and anointed with laudanum, camphorated oil, and ammonia. A large blister was applied across the umbilicus, and an injection given, consisting of

Pil. Aloë. Comp. ℥ij.
Spirit. Ammon. Aromat. gutt. lx.
Tinct. Opii, gutt. l. Infus. Sennæ, ℔j. M.

As it procured no evacuation, I proceeded to examine the state of the rectum, cum digito; and, feeling no obstruction, I passed up a tallow candle about six inches. It had not been up many seconds before the patient made a violent effort to stool, and nearly two pints of fluid offensive excrements, mixed with hardened fæces, were voided with great force. Hoping to distend the bowels and soften the collected scybala, I injected nearly four pints of warm water, with salts and infusion of chamomile, at different intervals, and again introduced the candle. The glysters were returned, without allaying the hiccup, vomiting, or pain.

It was evident that there was yet no direct communication between the stomach and the rectum. Stercoraceous matter was vomited; and I met with great difficulty in throwing up the glysters, from a resisting substance in the bowels.

Nov. 2.—No relief of symptoms; above a quart of fæculent offensive matter vomited in the night. I threw up three glysters of six ounces of infusion of chamomile and half a drachm of aloes each, and brought away one lump of solid fæces about the size of an egg. Pulse 80, small and thready, indicating the approach of inflammation, which induced me, notwithstanding his exhausted and debilitated state, to take away about five ounces of blood from his arm in two tea-cups. They were both slightly cupped, buffed, and the crassamentum firm. In an hour his pulse rose to 92; and I drew from the other arm four ounces more by a large orifice. He was rather faint afterwards, and the blood had no mark of inflammation upon it; he was easier than before the bleeding, and felt no pain.

Nov. 3.—He still remained without any abatement of his urgent symptoms. His complaint evidently possessed the characters of the iliac passion, and must, unless speedily removed, have terminated in death. Having tried all the usual means, and guarded against any tendency to inflammation by venesection, I determined to have recourse to the use of turpentine; I accordingly beat up an ounce of spirit of turpentine, and the yolks of two eggs, with half a pint of gruel, and succeeded in throwing up about four ounces. It occasioned an immediate tenesmus and smarting at the anus, and in less than half an hour my patient had a full copious motion; the hiccup and vomiting ceased, and he got several hours' sleep. Before night he had another evacuation.

Nov. 4.—He had five natural stools, and was, in every respect, going on well; I particularly cautioned him as to his diet, and enforced upon him the necessity of not taking any solid food.

April 10.—I pass over the further details of this case, which would not be very interesting to the reader, with observing, that notwithstanding the caution he received, he sustained a severe attack of continued fever, in consequence of imprudence in his diet and unnecessary exposure to cold, which retarded his recovery for several months, and occasioned him the loss of his right eye; however, by paying great attention to his bowels, and the use of saline medicines, cordials, and bitters, exhibited in a state of effervescence, he at length got over his dangerous illness, and is now able to walk out and take moderate exercise.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Fauna, Flora, and Pomona, kept at Hartfield, near Tunbridge Wells. By Dr. T. Forster. *From the 1st to the 31st of July,* 1821.

July 1.—A showery day. *Papaver somniferum* in flower.

2d.—A day of rain. On returning to Hartfield, from Hampshire, I noticed that some plants were rather forwarder at the former place than at the latter; but in general there was very little difference. Scarlet Strawberries plentiful.

3d.—*Lychnis Chalcedonica, Tropeolum majus,* with numerous varieties of *Dianthus barbatus* in flower. The scarlet colour of *Papaver Rhœas* now makes a showy figure in my garden. It is, however, almost unknown, as a wild plant, in this neighbourhood.

4th.—*Senecio aquaticus* in flower. *S. squalidus* still flowers in abundance in my garden. *Hieracium Forsteri* just coming into bloom.

5th.—A variety of *Carduus Marianus,* without the milky streaks, now flowers in my garden. Charlock, Kidlock, Mustard, Cress, and many of the kind of tetradynamious plants, are now in full flower, and give many of the fields a smart, yellow appearance. The Foxglove is also abundant, and in the gardens a profusion of Sweet William, Pinks, and Roses. The wild Roses have flowered late and badly this season.

7th.—Several Poppies now begin to flower, though this —*P. somniferum*—has, in general, been near three weeks later this year than last.

8th.—*Œnothera biennis* is in flower to-day. Flocks of Starlings, of the young brood, seen feeding on the lawn. I observed the Cockle, *Agrostemma Githago,* common in the corn.

10th.—*Hemerocallis fulva* in blow to-day. The walls begin to be ornamented with stonecrops.

11th.—*Chrysanthemum segetum,* and *Crepis barbata,* in flower in my garden. At last the flower grounds begin to make a showy, summer-like appearance, the Scarlet Lychnis, the Sweet William, Roses, Pinks, and other solstitial plants, being in full blow. Poppies, too, begin to be common. A very splendid show of the large, double dentated variety of *P. somniferum,* called, in common, Joan Silverpin, is now in flower at Hartfield.

12th.—*Heracleum Spondylium, Caucalis Anthriscus,* and

other umbelliferous plants, begin to be common. *Achillea Ptarmica* is very luxuriant. *Lapsana communis* is in flower. Riding from Cowden, I saw *Sonchus arvensis* blowing among the oats.

13th. — *Convolvulus Nil,* the blue garden Bindweed, in blow.

14th. — *Hypericum perforatum,* St. John's Wort, and *Convolvulus arvensis* in flower to-day. I noticed *Senecio Jacobæus* here and there; while *S. aquaticus* has been in flower some weeks. *S. squalidus* is still an abundant weed in my garden, and in full blow. *Hypericum perforatum* is just in flower.

15th. — St. Swithin's day ushered in by rain, which, according to a proverbial adage, forebodes rain for forty days to come. In the evening, however, a white stratus in the valley, and a clear sky overhead, seemed to promise a falsification of the prognostic.

16th. — If there were any rain to-day, it were only a few drops, but the Swallow flew low, and brushed along the surface of the ground, as if affording a rainy prognostic. *Sonchus oleraceus* in flower: the two varieties are troublesome weeds here.

19th. — The weather is now become warm, and to-night there is a great deal of lightning. I could not avoid noticing to-day the backwardness of some plants. On the vigil of Saint Margaret we have commonly the official Poppies in full flower, and many in capsule. This year there are scarcely ten plants of this kind which have attained the growth of a foot in height. There are several varieties of the garden Poppy in flower. *Hemerocallis fulva* in full flower.

20th. — I noticed both yellow and blue Lupines in flower to-day.

22d. — Within the last week, or ten days, the Willow Wrens — *Ficedula salicum* and *F. pinetorum* — have been very numerous. I have also seen the *F. sylvicola.*

23d. — *Lilium candidum* just in flower. *L. bulbiferum* has been in full blow some days; but both species seem late in general this year. *Lilium Martagon* is also in flower in my garden.

26th. — Showery weather, with very drying and sunny intervals. Having several cherriclacks in the garden and orchard, I had an opportunity of noticing, by the varying degrees of strength in their clacking noise, that the wind came in puffs, or very irregular gales.

27th. — *Papaver Rhœas* still bears flowers abundantly. *P. dubium* in flower also in my garden.

28th. — *Borago officinalis* in flower.

30th. — *Tagetes erecta* just coming into flower in the garden; and several sorts of garden Hawkweed.

31st.—Cloudy day, with nimbi, of fine mist-like form, on the hills. Thus has July ended without one really summer-like day all this season; nevertheless some summer fruits are very abundant; as Cherries and Currants; and, in some places, Strawberries and Hautboys have been plentiful; and there is a tolerably good prospect of Apples, and of Plums.

PART II.

ANALYTICAL REVIEW.

The Principles of Forensic Medicine, systematically arranged and applied to British Practice. By JOHN GORDON SMITH, M.D.

IT is customary for critical remarks on scientific productions to have primary reference to the *matter* of the work reviewed. In the present instance, we are, however, so impressed with the manner in which the book is composed, that it would be doing violence to the feelings with which we have this moment finished its perusal, not to say that Dr. Gordon Smith has here presented to the world a masterpiece of medical style. Not often do we see such a total freedom from meritricious ornament combined with so much care, to act up to the duties and responsibilities of an author, in avoiding, on the other hand, a loose, slovenly, and ungrammatical mode of expression. In the pages now before us, the *ars est celare artem* maxim is exemplified in a most happy manner—we have precision without preciseness, point without conceit, and manliness untinctured by dogmatism. It is in some measure indeed, we are ready to avow, a sense of personal gratitude, as well as an abstract feeling of justice, which has extorted this commendatory introduction; for when the duties of their calling compel to the perusal of five hundred pages at a stroke, it cannot be indifferent to reviewers, provided they have taste and feeling (which, by the way, are requisite qualifications), whether they are urged on to the completion of their undertaking by the pleasing impulse of a facile and forcible diction, or whether they have to breast the adverse tide, and kick against the tormenting pricks, of lumbering, jumbling, inefficient authorship*.

* To the minor points of typographical accuracy, Dr. Smith has likewise been, very commendably, attentive. With the exception of the *very few marked errata*, we could only detect, in the whole book, two mistakes—the one being an omission of the second *r* in the word protrusion, and the other the *fifth* satire of Juvenal being referred to when it should have been the *sixth*.

The matter of the work we shall permit to speak for itself; conscious as we feel, that, in pleading its own cause before the tribunal of the public, it will come off a victorious appellant.

The readers who feel interested in the history of that important part of medical science, which Dr. Smith has treated on in the paper now under notice, will please to refer for information to an article in the twelfth volume of the REPOSITORY; and, desiring an attention to this reference, we shall now, without further premise, proceed to give an abstract of the present performance, as ample as our limits will allow.

Our author divides his investigation into three leading classes of subjects. The first is made to comprise "Questions that regard the extinction of human life;" the second comprehends "Questions arising from injuries done to the person, not leading to the extinction of life;" and in the third division, "Disqualifications for the discharge of social or civil functions" are treated of. The first general head includes the considerations of, 1st, "Sudden death in a healthy state," from whatever cause it may have been produced;" 2d, "Death by personal agency, or *homicide;*" 3d, "Death by spontaneous agency, or *suicide;*" and, 4th, "*Infanticide.*" *Mutilation* and *rape* are the particulars embraced in the second general class; while mental and physical disqualifications, real or pretended, are discussed under the third division. There is a fourth and concluding section devoted to the discussion of "miscellaneous questions," in which are comprised utero-gestation, sexual ambiguity, and personal identity.

Of Sudden Death in the healthy State.—With respect to the signs of death, a great deal has been advanced, by continental writers especially, which must be considered as in some measure nugatory; there is, in reality, not often much ground for uncertainty respecting this particular, when, together with appearances, every thing is taken into combined consideration; and Dr. Smith very properly remarks, that "cessation of circulation and respiration, coldness combined with rigidity of the limbs, though not in themselves absolute proofs of death, amount, when combined, to very strong evidence." The stiffness of the limbs is of the greatest importance. Coldness, as in freezing and drowning, may be compatible with a retention of the vital principle; and as long as the limbs retain their flexibility, the fact of death may be doubted. Even the *commencement* of putrefaction is, of course, quite incompatible with life; but it is very rarely indeed that we need wait for this unquestionable token. The peculiar smell of the body is the best indication that the process of putrefaction has begun.

The intrinsic or morbid causes of sudden death, are morbid *action*, or *organic lesion*:—

"Now, if called to aid the researches of authority in a case where a person is found lying dead, and no one is forthcoming to give any information on the subject, the following is an outline of what we ought to do.

"It is a rule, under such circumstances, which should universally be observed, that if the body cannot conveniently remain where found until an inquest be assembled, an accurate examination should be made into every appearance connected with it on discovery. It will be of importance to the medical Practitioner to know the spot of ground, the situation of objects, and the posture of the body. He must carefully examine the whole surface of the corpse, not merely to discover wounds and bruises, but also to detect any improper tightness, pressure, or other impediment to free circulation. If there are any wounds, they must be carefully traced, and the anatomical relation of the parts in which they are found taken into consideration; if there are bruises, or other marks of violence, the parts beneath are to be dissected. These things being premised, whether we have yet discovered any presumptive cause of death or not, we are to proceed to examine the cavities of the body. It is, perhaps, not very material with which we begin; but, in such important cases, we should never be satisfied with the morbid appearances found in one only, however conclusive these may appear. The circumstance of having rested there, and the consequent necessity of admitting the possibility that, by further search, other phenomena indicating fatal disorder might have been discovered, may mar the whole process, and subject us to censure."

The contents of the cranium must of course be more particularly inspected, if we have reason to suppose apoplexy, and to this must be joined an examination of the stomach; for if we find in this last viscus a large quantity of alimentary matter, an unusual portion of strong liquor, or both, together with morbid appearances in the brain, the presumption will be strengthened, that apoplexy has extinguished life. In deaths from epilepsy, we cannot lay our account with meeting always in the brain such decided marks as when apoplexy has occasioned the extinction of the vital principle; but these are, nevertheless, sedulously to be sought for, and "tumours, ossifications, or disordered structure, and causes of irritation in nerves, are frequently discovered." The Practitioner will recollect that sudden deaths are often the consequence of rupture of the heart, bursting of an aortal aneurism, as well as other spasmodic and even inflammatory affections, attacking the heart and stomach, which shall leave no traces discoverable by a *post mortem* inspection; and there may be a source of perplexity in the circumstance, that an individual, being already the subject of a mortal

disease, shall have his death accelerated, and thus, in fact, occasioned, by the application of a cause which otherwise would not have proved adequate to the effect. Our author refers to the recent inquest at Oldham, in exemplification of this point.

With respect to death from lightning, Dr. Smith is doubtful whether, "beyond the appearances that may present themselves on the surface, there be much of a satisfactory nature in the morbid anatomy." Even if the allegation be correct, that the blood, in these cases, is always fluid, we cannot consider the circumstance conclusive, since this appearance has been found in cases of death from other sources. When inhalation of carbonic acid gas has produced death, "the eyes are generally found wide open, and, as some say, protruded from their sockets. The tongue is commonly thrust out, and that at one side of the mouth; the jaw, at the same time, clenched, and the face livid." "Congestion of blood will be found in the right side of the heart, and in the veins leading into these cavities." "In mortalities from cold, hunger, &c. we shall not only find emaciation and emptiness in the primæ viæ, but very scanty remains of blood, especially in the more distant parts of the body." Deaths, from the *sudden* application of cold, will not, for the most part, occasion any appearance of internal disorganization; and this want of *post mortem* evidence would be found in some cases of immediate mortality, from a debauch; but, in most of these latter cases, "we shall find the victim to have been carried off by apoplexy." Dr. Smith admits the facts upon the evidence that is before the world, of spontaneous combustion; and it is right that the medical Practitioner should be aware of its possible occurrence.

In cases of imputed or suspected *homicide*, the following questions may be asked:—

"Are there no *diseases* that occasion death, and leave appearances similar to those found in the body on the present occasion? Could the person have inflicted this injury on himself? Has not a fatal result taken place, in this instance, from a cause that, in another person, would have been of little or no consequence? Was every thing done for the recovery of the deceased? Or, might he not have recovered had proper treatment been pursued? And in certain cases, as hanging and drowning, it has been matter of inquiry, whether a person was killed in the manner alleged, or first deprived of life, and then placed in that situation, in order to baffle suspicion."

All these, and other questions, the Professional man must lay his account with having to reply to, in many cases of medico-legal investigation.

Criminal attempts on life are usually made by poisoning, suffocation, and wounds. Poisons are arranged by Orfila ac-

cording to their effects, and are divided into corrosive or escharotic, astringent, acrid, narcotic, or stupifying, narcotico-acrid, and septic, or putrifying. The symptoms produced by the first are violent pain and sense of heat, with bloody discharges, and fœtor of the breath. The appearances after death, caused by their ingestion, are a livid aspect of the body, with distorted features; excoriations in the textures, over which the poison has passed; and inflammation, if not gangrenous spots, eschars, and even perforations, in different portions of the stomach and intestines. Astringent poisons produce pain and constriction in the alimentary canal; this constriction is, for the most part, discoverable in *post mortem* examinations, and is especially found to affect the colour. The symptoms and effects of the acrid poisons are nearly the same with the corrosive. Narcotic poisons occasion drowsiness, convulsions, delirium; and sometimes apoplectic congestions are found in the head after death. They do not so much affect the structure of the parts over which they pass as do others. The narcotico-acrid "embrace such articles as produce the united effects of the two former." Orfila's account of the septic poisons Dr. Smith objects to, as not sufficiently discriminative, viz. that they produce a general debility, and do not, in general, alter the intellectual faculties, "since," says Dr. S. "the narcotic poisons induce debility; and one striking characteristic of the corrosive poisons is the unimpaired state of the intellectual faculties."

The principal articles of the first class are the mineral acids, and the oxalic, the oxymuriate of mercury, salts of copper, arsenic, baryta, with other saline compounds. Lead, and its preparations, comprehend nearly the whole of the second class. The acrid is principally furnished from the vegetable kingdom: helleborus niger, veratrum album, the euphorbia, aconitum napellus, &c., are of this class. The narcotic class includes opium, the laurel, henbane, &c. The narcotico-acrid poisons are of the most active and deadly nature: the upas tree of Java, the ticinas of America, the deadly night-shade of our own gardens, and hemlock, are in this class. The septic poisons belong to the animal and gaseous kingdoms.

"In the investigations which it may become our duty to perform, (in reference to poisons) we may have to do either with the living or the dead body. The law contemplates the crime in the same light, whether the evil intent has been carried into execution or not. In those cases to which we may be called during the life of the person who has taken poison, the primary object of the Practitioner must, of course, be to save life, and remove suffering; and though, in both of these indications, he may be unsuccessful, it will not be the less necessary to institute a judicial inquiry into the facts connected with

the case. It may still be of the utmost importance to know what particular poison has been administered; and it is incumbent on the Practitioner to be careful, in his endeavours to save his patient, not to destroy the means of verifying or disproving the imputation of guilt.

"One rule to be invariably observed when we are called to a case of poisoning, is to ascertain, if possible, what the individual last swallowed; to get possession of the utensil in which it has been contained, and of the remains, if there be any. If the person has vomited, it is of equal importance to secure the rejected contents of the stomach.

"If we are called while the sufferer is yet alive, we must also observe the symptoms; and a corroborative proof, as to the particular deleterious article administered, is to be obtained from the successful application of an established antidote. Having obtained a portion of the substance in which the poison was mingled, or of the matter vomited, we may submit a part to the tests which can be most readily obtained; and the result will assist us in forming an immediate opinion as to what course should be pursued for the recovery of the patient; though, for satisfying the inquiry of justice, it is necessary that the mass of these substances should be reserved for experiment at leisure, and with the means of accuracy. It has been suggested as important, and several authors recommend not to omit the administration of part of the suspected substance to an animal. I should say nothing of the cruelty of such a measure, were it conclusive; but some substances, that have a fatal effect on the human system, do not act thus upon lower animals; besides which loss of time that cannot be afforded may be thereby incurred; and, after all, the utmost result is the mere verification of our suspicion, that the article in question is poisonous, while we shall yet have to seek other means for the knowledge of what particular poison has been administered.

"In every case of suspected poisoning, where the history is unsatisfactory, it will be of considerable importance to inquire into the patient's habits of life, peculiarities of constitution, and liability to complaints, as well as the nature of these—whether he is known to have been formerly affected in a similar manner; whether particular articles of food, generally considered wholesome, used to disagree with him; of what his last meal consisted; and whether any mistake or deleterious interference could have occurred in the culinary department.

"These injunctions are palpably necessary where the person is yet alive, and the great object is recovery; but they should be attended to in many cases where death has taken place. The only object we have then in view is the detection of the poison; and, being masters of time, and having it in our power to carry investigation much further, and pursue it more deliberately than during life, we must be careful to throw no obstacles in the way of a full elucidation of the question, by hurry or impropriety in our mode of proceeding.

"We are to seek the cause of death by negative as well as positive

proofs. By the former, I mean the absence of all signs of injury or derangement, whether from violence or disease, that might be urged as the cause of death; and by the latter, the presence of the fatal substance, and the known or presumed effects of such substance on the system.

"In searching *post mortem* for the presence and traces of poisonous ingesta in the internal parts of the body, the following rule of procedure will be applicable in all cases. The whole canal for alimentary functions should be examined, from that part of it which is appropriated to deglutition, to the ejecting extremity; laying open the fauces and œsophagus, and examining the large intestines as well as the small.

"We are never to be deterred from this examination, merely because there may have been an inconvenient lapse of time between the death of the individual and the period of investigation. It was formerly believed, that, after a few days, any researches in the body would be useless, and even dangerous. With regard to the danger, it may be observed, that much is placed to this account that belongs merely to disgust; and as to our being baffled in the research, if it be rightly conducted, the detection of *mineral* poisons, at least, cannot be affected by the approach of putrefaction."

Having made these preliminary remarks, Dr. Smith proceeds to the consideration of the various poisons, with their tests and antidotes; it is impossible, however, in the small space to which we are limited, to analyse this part of the work; and we must, therefore, refer the reader to the book itself, to Orfila's works on poisons, from which this portion is principally taken, or (for practical purposes) to the Conspectus of the Pharmacopœias, by Mr. A. T. Thomson, in the appendix to which is given the neatest and most useful summary of toxicological science that we have hitherto seen: and we would here again repeat our advice, for every Practitioner of medicine to make this last little work a *vade-mecum* for immediate reference. To "short cuts" and "royal roads" we do not profess ourselves at all friendly; but, after having read and digested the larger treatises on subjects which involve practical considerations, it is always expedient to make for ourselves, or to receive from others, a sort of tabular summary for extempore purposes.

In the chapter on "suffocation," we are told that the term is applicable to every variety of death from impeded respiration, and that it expresses the *ratio moriendi* in cases of *noxious inhalation*, *drowning*, *hanging*, *strangling*, and *smothering*. In suffocation, death is immediately produced by impeded circulation of blood; and the damming up of the current takes place in the lungs; there is often, and indeed almost necessarily, consecutive congestion in the brain, and therefore apoplexy becomes an attendant upon suffocation.

The principal morbid appearances in cases of death from the above-named sources, will be found to be "a deep blue colour of the lungs, with blood extravasated in the air vessels —the *right* auricle and ventricle of the heart replete with dark-coloured blood, and their immediate communications in the *venous* system also more or less gorged; darkness in the countenance, and lividity about the surface of the breast and other parts of the body; with turgescence, and even rupture, of the vessels of the brain."

In forming our opinion on the question of death from the inhalation of noxious gas, the history of the case will, for the most part, be sufficient. The deleterious influence of carbonic acid gas is pretty generally known. With respect to drowning, much of erroneous notion had, till within a very few years past, obtained not only among the vulgar, but also among professional men; such as the lungs and alimentary canal being filled with water, &c. Death, however, in this case, as intimated above, is purely suffocation, and the internal signs of this will be found upon inspection. Frothy mucus is, for the most part, also found in the lungs. "Authors have laid stress upon a fluid state of the blood in those who have been drowned. This, if discovered, may have its use as a corroborative, but no further, as we have been taught that the same appearances take place in bodies of those killed by lightning, and by certain poisons." If an individual be first killed and then thrown into the water, there will, of course, be a want of the characteristics of drowning, unless the death have been produced by strangling or smothering, and in these cases the external marks would be perceptible. "Where dirt, sand, &c. are found under the nails, or any substance likely to have been grasped in the water, is discovered in the hand, it will be a strong inducement to believe that the person died under water." When bodies have lain under water some time, they become converted into a fatty substance termed adipocire, which in appearance is like spermaceti; it will be necessary, however, to recollect, that from four to six weeks submersion is necessary to effect this transformation. A curious case is recorded by Dr. Male, in which it became of the highest moment to ascertain whether the death of a person found drowned had occurred prior or subsequent to a certain period, and in which the knowledge just alluded to proved important in the decision.

The medico-juridical questions in case of a person found hanging, will be, 1st, "Was the person alive when suspended, or hung up after death;" 2d, "Did he hang himself, or was he hung by others?" If the person have been hanged alive, the discolouration caused by the rope might be expected to

be "very distinct, and passing all round the neck, because the blood forced out of the vessels while yet in circulation, must be in greater quantity than it could be after circulation has ceased;" if there be no injury among the cervical vertebræ, *that* might be received as corroborating evidence of the person having been first killed, and then suspended; but as it is now pretty generally admitted that luxation of the neck is not necessary in death from hanging, the absence of cervical injury cannot be taken as positive evidence.

In our endeavours to solve the second question, we must, of course, look for the signs of scuffle and resistance.

With respect to wounds, it will be necessary to recollect that, although not immediately fatal, they may have been the cause of death taking place at a somewhat distant period; and it is hardly necessary to say, that both anatomical and physiological knowledge are indispensable for assigning the real or probable cause of derangements found in injured bodies, and for distinguishing morbid appearances from those of the healthy state.

"And even this is not all: the Practitioner will be required to give information of the length, breadth, depth, figure, and direction of a wound; its character, whether incised, punctured, or lacerated, &c., and, most probably, to state with what sort of a weapon it appeared to have been inflicted. Let him be careful in his dissection, that no aggravation be thereby added to the injury already inflicted; that no blunder or avoidable accident occur, and that the effects of careless or awkward dissection be not taken into account, or confounded with real lesion. In laying open wounded or injured parts, they should be preserved as entirely in their primary state of derangement, as the necessity of sufficient dissection, and due examination, will allow."

In estimating the bearing of wounds in the head, it is especially necessary to recollect both that an injury may prove the occasion of death, even although no immediate symptoms of an alarming nature be produced, and also that death may be caused by mischief done to the brain, which shall leave no *visible* marks either external or internal. Concussion, too, of the brain, it is well known, may be produced where no violence is offered directly to the head. "A case is given by Casaubon of a child that fell on its feet from the window of a first story of a house. It made no particular complaint at the time; but died at the end of three months, under symptoms of disease in the brain, in which, upon examination, an abscess was discovered."

Wounds in certain organs about the neck are *necessarily* fatal; as on the carotid arteries, internal jugular veins, spinal marrow, and the œsophagus. A known method of murdering young children, of which the Practitioner should, of course,

be aware, is to pass a sharp pointed instrument between two of the upper cervical vertebræ.

In most instances of wounds of the thorax, a plurality of organs will be involved; and in judging of their nature and effects, it will be right to recognize the intimate connexion of important nerves with the thoracic viscera; this nervous implication requires likewise to be taken into account in respect of abdominal wounds; for although in death from these the hæmorrhagic discharge and other lesions, for the most part, render the event sufficiently explicable, yet sometimes a blow given in the region of the stomach will cause instant death without any visible signs of the manner being discoverable.

As the fact of suicide, or "death by spontaneous agency," is frequently determinable from inspection of the body, a great deal, of course, of what is applicable to this inquiry is to be found in the preceding sections of Dr. Smith's work. When, however, medical opinion is required on the question of suicide, or *homicide*, it will be of some consequence to advert to the particular manner and circumstances of the death. If, for example, we find an individual poisoned with an unusual substance, and disguised so as to conceal; the very choice of such substance, difficult as it is to procure, and uncertain perhaps in its operation, would be presumptive evidence against the inference of suicide. If, on the other hand, on opening a body, we find large pieces of solid arsenic in the stomach, we are led to the conclusion that they have been swallowed of the person's own free will and consciousness. Dr. Smith likewise quotes the following intimations from Foderé, as affording considerations of moment in cases that admit of question or doubt: —

"1. If the person had for some time laboured under melancholia, had met with losses, disappointments, or had suffered any acute chagrin, or anticipated punishment or disgrace, from misconduct. 2. If any of his family, associates, or connexions, had any interest in his death. 3. The season of the year should be taken into consideration; for I have observed, without being able to assign the reason, that suicide is more frequent during the solstices and the equinoxes. 4. If the patient, instead of complaining, remains quiet, seeks for solitude, and refuses medical aid. And, 5. If there be any writing, (as those who destroy themselves ordinarily express their last opinions or will), it will be one of the most satisfactory proofs that they have made away with themselves. Remains of poison, found in their pocket, or in the apartment, are but an equivocal proof, and one which may attend upon homicide as well as suicide."

No absolute proof of homicide in a drowned person is furnished by the circumstance of the legs being tied; for instances of suicide have occurred, where it has been evi-

dent that this had been done designedly, and by the individuals themselves. Hanging is, for the most part, a self-inflicted death. On the contrary, strangulation is almost necessarily the act of another. Some wounds are nearly beyond the power of the individual to give himself. "For instance, if we find a person to have been wounded by a small and sharp-pointed instrument in the spinal marrow, some extraordinary combination of circumstances would be necessary to sanction the surmise that it was done by his own hand;" and so with respect to injuries on the head, unless fire-arms have been used. If, in case of death from a pistol, it be found that the weapon has been introduced into the deceased's mouth, it is almost certain that the case is one of suicide. The wadding of a pistol being torn from paper belonging to the individual, would be a presumptive evidence of suicide:—

"In the case of a person whose death was connected with an attempt to assassinate one of our princes, many were dissatisfied with the account of his having laid violent hands on himself. The declaration of Sir Everard Home has set this question completely at rest; and the manner in which this has been done, furnishes an admirable lesson on the importance of medical investigation in cases of doubt or difficulty. Sir E. found the throat cut so effectually, that the man could not have survived above a minute or two; and, from the length and direction of the wound, no doubt remained of its having been given by his own hand, *for any struggle would have made it irregular.* Sir E. further states, that the coloured furniture above the Duke's pillow was sprinkled with arterial blood—an appearance which could not be mistaken by those who had seen it. The deceased had cut his throat on his own bed, and had hung his coat previously so far from the bed, that his own blood could not reach it. On the wrist of this coat there was *dry sprinkled blood*, evidently from a wounded artery—from which kind of sprinkling the arm of the assassin of his Royal Highness could not escape; but must have been sprinkled along with the furniture of the bed."

Dr. Smith concludes this section by one or two remarks on the agitated question respecting the degree of disgrace and punishment which ought to attach to suicidical acts where no insanity could be proved. "I would," he says, "specify my idea of preventing suicide in something like the following terms: that, in every case where an individual has taken away his own life, the body should be given to some anatomical school for dissection, unless such evidence can be adduced to prove the mental alienation of the individual, as would have exculpated him under a charge of murder, had he been tried for the same."

Infanticide.—This question resolves itself into two parts,

viz. fœticide, a term applied to criminal endeavours to procure abortion, and infanticide, more strictly so called, which is meant to designate the destruction of the offspring after birth.

It is an established fact, that, under the fifth month, no fœtus can be born alive; from the fifth to the seventh month it may come into the world alive, but cannot maintain existence. Every intentional injury done, then, to the production of the womb prior to the fifth month, would come clearly to be referrible to the crime of fœticide. The notion of quickening, or infusion of the vital principle at a given period, though still retained by the vulgar, is abandoned by the physiologist. "The embryo is furnished, at the time of impregnation, with all the constituent principles of a living being, and its future progress is but the development and increase of these—not the acquisition of any more." Laws, then, founded upon the presumption that the fœtus is essentially a different being before and subsequent to quickening, are conceived upon erroneous principles:—

"The duty of a medical Practitioner, in aiding legal inquiry into a case of abortion, is, first, to ascertain the reality of the event; and, secondly, whether it has been caused by natural means or improper interference.

"If, when we are called, abortion is going on, our knowledge of this event, as a disease requiring professional aid, will enable us to detect the fact. The woman will be in a state of suffering, and, in all probability, unable to conceal the truth; but, as it is possible it may take place without exciting much uneasiness, it will be our duty to examine into her actual situation.

"A discharge of bloody and ichorous matter takes place from the vagina. This we must carefully examine, as solid substances are frequently mixed with it; and among these, in the early stage of pregnancy, the ovum might escape unobserved. On examining the vagina itself, we shall find it relaxed and dilated—the labia enlarged and soft—and the os uteri will be found open. In the mean time, if the ordinary concomitant of *uneasiness* be present, we shall find it resolve itself into tremors, faintings, and pains in the region of the uterus, and the further pregnancy has advanced, there will be a stronger resemblance to the process of parturition. If gestation has made considerable progress, there will be a sudden disappearance of previous abdominal enlargement; a secretion, or an approach to secretion of milk in the mammæ; flaccidity and rugosity of the surface of the abdomen; and other derangements of the usual bodily appearance familiar to the medical Practitioner.

"If the abortion has taken place some time before, and the woman has recovered, circumstantial evidence only can prove the fact, or it can merely be inferred because pregnancy may be proved to have existed. Actual examination is of little use when ten days or a

fortnight have elapsed. The parts by that time return to their usual state; or, if they do not entirely regain it so speedily, progress enough to baffle inquiry is made."

The methods employed for the purpose of procuring abortion, are resolvable into two kinds; viz. those that act upon the system of the mother—and those that are at once applied to the uterine organs. The notion of specific action upon the uterus by medicines, is, in some measure, erroneous. Savine, colocynth, aloes, turpentine, &c. are, however, the articles usually taken with the view of exciting the uterus to expel its contents; and that the vulgar have faith in the direct and peculiar action of such substances, it is necessary to recollect. Profuse blood-letting has been had recourse to. That abortion may be sometimes procured by the introduction of sharp-pointed instruments into the womb, need hardly be said—and such measures have been instituted.

But, to proceed to the consideration of infanticide more properly so designated—the two first problems for solution in questionable cases will be, whether the child whose body is submitted to our inspection came into the world alive—and, if it did, what has been the manner of its death?

If the child has not come into the world alive, it has not respired, and in this case the lungs are of a dark chocolate colour, resembling that of the liver; they do not fill the thoracic cavity—they are of a solid consistence—they sink in water—and, on cutting into them, no air is emitted, and no hæmorrhage follows the incision. The foramen ovale will be found open, the ductus arteriosus and canalis venosus pervious, the diaphragm greatly arched, some urine will be found in the bladder, and the meconium in the intestines. The opposite to these conditions will, of course, be expected to present themselves after respiration. But doubts as to the accuracy of the above tests have recently been suggested. It has, in the first place, been said, that the infant may respire before it is born, and yet come into the world alive—in which case the hydrostatic test must prove unavailing; but,

"To plead in defence of an allegation of infanticide, that the child died after its head was born, is what we cannot conceive. A woman accused of this crime would not venture to draw so nice a distinction; and though a Practitioner were to admit the possibility of the occurrence, it would be a bare possibility only. In such a case (allowing it to occur) there cannot be a full distention of the lungs; for the play of the respiratory muscles will be opposed by the pressure of the parts of the mother on the thorax. If, therefore, we find that there has been partial inflammation of the lungs, with increased *absolute weight*, (afterwards to be explained) attempts to respire must have been made on the part of the child; and if there be doubt whether

they may have occurred before or after birth, the accused will have the benefit of the uncertainty."

It has been, secondly, urged that air may have been introduced into the lungs after birth, although the child may have been still-born. Supposing, however, this to be done, the consequent distention would not increase their *absolute* weight, as is effected by respiration.

The lungs, it has been said, thirdly, may be rendered specifically lighter than water, by the evolution of air in the course of the putrefactive process. But too much importance has been attached to this objection, since the lungs resist putrefaction longer than any other parts of the body, excepting the bones.

In the fourth place, it has been stated, that the lungs, after complete respiration, sometimes sink in water. But this supposes disease; and it would be found that if the healthy be separated from the diseased portion, it will not subside in water.

Fifthly; it has been noticed that, in sound lungs, one will sometimes sink while the other will float; but if, in this case, the buoyant lung be the *right* one, the objection loses its force, since one gasp may, in some measure, distend that, and not prove sufficient for the distention of the whole mass of lungs: in fact, no experiment on these points can be considered satisfactory, unless separate portions of lungs are tried.

A sixth objection to the hydrostatic test is the following: that children may be born alive, and exist, for a time, without respiration; and it is a possible case, that other facts may be at variance with the hydrostatic test; here it will be important to recollect, that the functions of independent life, while they almost necessarily diminish the *specific gravity* of the lungs, *must* increase their *absolute weight*, since, after separation from the mother, the blood is transmitted in vastly greater proportions through the pulmonary organs, than prior to such separation. Ploucquet, who first pointed out this particular, observes, that the weight of the lungs of a full-grown fœtus, which had never respired, is to that of its whole body, as one to seventy; while, in new-born infants, after respiration has been established, it is increased to two to seventy; that is, absolutely doubled. It is acknowledged by Ploucquet, that a greater number of trials than those which he had instituted is required to establish the truth of the above assumption. Dr. Smith is, however, disposed to think, that further experiments may prove the accuracy, and establish the importance, of the test now alluded to, which, it is scarcely necessary to say, if substantiable, is liable to

fewer objections than the common hydrostatic trial. It were desirable that Practitioners should carefully institute experiments on the weight of the lungs to the whole body, in all cases in which they have an opportunity of so doing, and report the results. "If only ten Practitioners were each to examine the bodies of ten children *in a proper manner*, the aggregate amount would be of infinite consequence, and might establish or set aside the test at once, neither of which appears yet to have been done."

Respecting the ways in which a new-born child may be deprived of life, medical writers on the subject have proposed to divide them into two classes—that of *omission*, and that of *commission*. A child may perish from omission, by the face being placed downwards in the delivery and not removed; it may be smothered in the discharge which follows its expulsion: breathing may be prevented by a portion of the membranes covering its face; or the umbilical chord, being longer than usual, may strangle it. Again, the life of the child may be lost, from a neglect to tie the umbilical chord before separation. It may, further, be killed by exposure to cold in the birth; and it is, lastly, a possible case, that want of nutriment may prove the cause of death.

The acts of commission may, of course, be numerous; but as concealment is usually sought for, it may be necessary to point out the most generally had recourse to with this view. A child, then, may be killed by premature ligature of the umbilical chord—it may be suffocated by the hand, or by being placed under bedding, hay, or even chaff, mud, earth, or sand—exposed to burning sulphur, or have its tongue doubled back; and, lastly, "a horrible device has been resorted to in the hope of escaping detection, viz. thrusting a long, fine, and sharp wire into the brain by the fontanelles, behind the temporal bone, through the squamous suture. A midwife was executed at Paris, for practising this upon infants before the head was expelled from the vagina—and, consequently, before respiration could have taken place."

Investigations, for the purpose of determining the question of infanticide, ought to be conducted in the most careful manner. "The nature of the situation in which the child is found should be noted down; the state of the body as to filth or blood: and, if the child has been removed from an exposed situation, it should be recorded whether it be clean or otherwise; and if the latter, of what nature the substance is that dirts it—whether any mud, or other matter capable of stopping the mouth and nostrils, be found about them." Having washed the fœtus, let it be carefully weighed and measured; if its length is less than fifteen inches, and its weight under

five pounds, the birth may have been before the seventh month; and if the body is flaccid with sugillations under the skin, it may have died *in utero*. Let marks of violence be sedulously searched for, even of the most minute kind; and any indication of pressure about the neck should be scrupulously distinguished.

The spine must be carefully examined, then the interior cavities, and, lastly, the head. It is of importance to examine the position of the lungs, and how much of the thoracic cavity they appear to occupy. The whole of the lungs must first be tried in a large and deep washing basin, then the right and left separately, and afterwards each lung by pieces. The heart, and blood-vessels about it, must then be examined. In the examination of the intestinal canal, the presence or absence of the meconium must be recognised. "Infants *in utero* cannot evacuate this excrement; and if they come into the world dead, it is not to be supposed that any spontaneous evacuation will then take place."

While it is the duty of the parties engaged in the investigation not to omit the recognition of *any* appearance or fact, however unfavourably it may bear towards the female suspected, "it is equally our duty," says Dr. S. "to know and examine into circumstances that will bear an exculpatory construction." Great importance ought to attach to the circumstance of the mother having, or not having, made preparations for the care of her future offspring. "Thus the plea of delivery by surprise receives strong confirmation, if baby-linen be found in her possession—and from other precautions having been taken." And that females have been so surprised by unexpected labour, as to bring forth a child in places, and under circumstances which endanger its life, is an allowed fact.

We have thus given a rapid sketch of the first class of questions above enumerated, viz. those that regard the extinction of human life; on the two remaining questions we find ourselves compelled to still greater brevity, as the interesting nature of the matter already gone over has led us to a transgression of our prescribed limits. It will be right, however, to mention slightly a sort of appendix to the first division of Dr. Smith's treatise, in which the question of *survivorship* is briefly discussed.

In case of two individuals found dead at a time, it sometimes becomes necessary, on account of the disposal of property and other considerations, to ascertain which of the two was the first to have died. The inference must be drawn by examining the parts involved, and the extent of the injury in either. If several persons are at once buried in ruins, we

should conclude that death was more speedy, where there were proofs of a large stone falling on the head and crushing it, than the same weight falling upon another part. In simultaneous drowning, inferences may be made from one of the persons having been a better swimmer than the other, from there appearing more frothy mucus in the lungs, and other indications of longer struggles. When noxious gases have occasioned death, the relative situation of the bodies as to the vicinity of the noxious air must be taken into consideration, and the state of the respiratory organs and general system as to more or less power of resistance. Upon a case of plurality of deaths by suspension, the position and tightness of the cord, suspension being complete or partial, marks of great struggling, injury or want of injury to the spinal marrow, may be taken into consideration. " In the instance of a public execution, where a father and son were hanged together, in this country, and in which there might have been litigation about the succession of some property, the matter was decided, in consequence of the spectators distinctly observing that the one showed signs of being convulsed after the other had become motionless."

But the most common instances of difficulty in respect to survivorship, are where a mother and child die together in parturition; and we are tempted, notwithstanding what we have just said as to the transgression of bounds, to extract the following case from Dr. S., which concludes the section of his work now under notice:—

" In 1806, the cause of Fish *v.* Palmer, tried in the Court of Exchequer at Westminster Hall, arose out of the grounds now quoted. Fish (or Fisher, as in some reports) had a still-born child by his wife, and, at her death, resigned the estate to his wife's brother-in-law. Some circumstances afterwards occurred to induce him to bring this action, and to attempt to prove that the child had not been born dead. Dr. Lyon (deceased at the time of the trial) had declared, an hour before the birth, that the child was alive; and, having directed a warm bath to be prepared, gave the child, when born, to the nurse to be immersed in the warm water. It did not cry, nor move, nor show any symptoms of life,—but while in the water (according to the testimony of two women) there twice appeared a twitching and tremulous motion of the lips. Upon informing Dr. Lyon of this, he directed them to blow into its throat, but it never exhibited any other signs of life.

" Drs. Babington and Haighton agreed that the muscular motion of the lips could not have happened if the vital principle had been quite extinct, and that, therefore, the child was alive. Dr. Denman, on the contrary, gave it as his opinion that the child was not alive. He drew a distinction between uterine and extra-uterine life, and

thought that the remains of the former might have produced the twitching of the lips.

"Setting aside the more than questionable accuracy of the two women, which was well urged by the learned counsel for the defence, the reader may form his own idea as to which opinion of the professional witnesses might have been the right one. The jury found that the child was born alive, and, according to Foderé, who quotes the case, the twitching was no evidence as to vitality."

Medical opinion in courts of justice lies under the stigma of being more discrepant and discordant than any other. Does this arise from the uncertainty of physiological and pathological principles, or from the members of our profession not giving their minds sufficiently to those considerations which are connected with juridical inquisition?—At any rate, it is expedient for us to do all in our power to diminish the justness of the accusation.

Mutilation and rape, as already intimated, are the two subdivisions of the second class of questions. On the first of these, however, scarcely any thing need be said; it is, indeed, passed over by Dr. Smith with scarcely any remark, beyond that of its divisibility into three kinds, viz. those occurring from no particular intention whatever—from a positive design to maim or mutilate—and from mal-practice in surgery:—

"I shall be excused," he says, in reference to the last, "for quoting an observation made by the late Lord Chief Justice of the King's Bench on the trial of a medical Practitioner, who was indicted *for the murder* of a patient, while in the supposed discharge of his duty. In his charge to the jury, Lord E. rebutted the idea of murder in the case, but admitted it was matter of consideration whether *manslaughter* had not been proved, as laid in the coroner's verdict. In that case, he said, the prisoner must have been guilty of criminal misconduct, either through the grossest ignorance, or from the most criminal inattention. It did not appear that there had been any want of attention on his part; and that he had some degree of skill, was established by the evidence * * * * *. His lordship, however, discountenanced a verdict of *manslaughter*, which would encompass the exercise of the profession with dangers that would deter a reflecting man from entering on it. A verdict of *not guilty* was returned."

With respect to rape, "professional investigations would lead to no fair conclusion, unless made immediately after the commission of the crime;" there may then be local marks, such as laceration, tumefaction, hæmorrhage, cum semine emisso. If possible, too, an examination should be made of the alleged perpetrator; "for where much physical injury has been suffered by the one, the other can hardly be ima-

gined to have escaped without a share." The presence or absence of the hymen, and other supposed marks of virginity, must always be considered as in a great measure fallacious. Young persons, it is known, are occasionally subject to purulent discharges from the vagina, and some nicety of discrimination, with an attention to collateral and presumptive circumstances, might be required in cases of alleged violence, with the signs of infection adduced as proof:—

"With regard to females suffering this outrage in a state of natural sleep, without consciousness on their own part, it may (under circumstances that will readily suggest themselves) be considered possible; though we should, perhaps, hesitate before subscribing to the decision of the faculty of Leipzig: 'Dormientem in sella *virginem* insciam deflorare posse.'"

On disqualifications, mental, physical, and pretended, we have very little room left for descant. Dr. Smith expresses himself in the following terms, in reference to the question of particular opinion, for the satisfactory recognition of the insane state:—"I should be apprehensive, that, unless opinions are required from those who have really made such maladies their particular study, or have had ample opportunities of observing the individual about whom there is question, the authority of their conclusions would be often contested, even though, in other respects, they might be men of high professional attainment." In furious mania, he allows, there can, in general, be very little ground for apprehending an erroneous decision; there is, however, in many cases, a determined cunning connected with mental aberration, when not of so violent or decided a cast, that often requires a long, and patient, and skilful exercise of tact to detect; and there is another source of difficulty when an individual is mad only on one particular point:—"In such cases we may be deceived as to the real state of the person's mind, as we might not, in the course of repeated interviews, be able to perceive the aberration." It might have been added, that there is likewise a difficulty in this case, even allowing that you have ascertained the actual insanity, to decide upon the individual being fit to be regarded as capable of managing his own affairs, inasmuch as, with the exception referred to, the mind appears absolutely, and *in toto, compos.*

In giving our opinion on the question of probable recovery, the exciting source of the disease must have considerable influence,—whether the madness have been hereditary, or occasioned by injuries, or have been induced through the medium of other diseases*. The last are generally the least

* Dr. Smith makes use of the term *bodily* disease; but, with sub-

formidable; the discovery of hereditary tendency will have some weight in making our prognosis cautious; and injuries of the head are often of so deep and permanent a kind, as to do away with the hope of time effecting any essential amelioration:—

"But, in estimating the likelihood, or actual degree of recovery, in a case of insanity, there are other considerations to be attended to; as, for instance, the violence of symptoms, under which may be ranked the expression of the eyes and countenance; the state of the natural functions, as regards sleep, appetite, evacuations, &c. The greater derangement among these, the more unfavourable must necessarily be the prognosis. In like manner, resistance to the ordinary effects of medicines indicates an obstinate state of derangement, in proportion as the resistance is strong; the occurrence or want of remissions,—in other words, the intervention of lucid intervals is always an important matter; for in proportion to the frequency, duration, and steadiness of these, are we warranted to think favourably of the issue—it being always a good sign when the rational state is not easily disturbed. Recent cases warrant better expectations than those of long standing; and the age of the patient must also go for something; insanity, *cæteris paribus*, being more curable in early than in advanced life. Convalescence will be confirmed in proportion as the recovering mind can endure intellectual application without any tendency to relapse."

Dr. Smith follows Cullen's divisions into mania, melancholia, hypochondriasis, and fatuitas; and for this we, in some measure, commend him; for, although averse as any can be from metaphysical distinctions of mere physical states, we are disposed to think, that our vascular and visceral, and membraneous and digestive men of the present day, are too apt to overlook the good, as well as to throw aside the bad, of nosological science. Whether dyspeptic derangement precedes disordered intellect, as in hypochondriasis, or is only an incidental accompaniment of it, as in melancholia, is often a very momentous consideration, in reference as well to the actual essence, as the probable duration, of the malady. But your sympathetic and chylopoietic men will laugh you to scorn if you dare to announce any "disorder of health," the alpha and omega of which does not implicate the chylopoietic organization; while your inflammatory radicals, in their opposition to nosology, cry out, Show us the chapter and verse of disorder in the altered state of the vascular system,

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mission, we think this expression, as a distinctive cognomen, ought, as much as possible, to be avoided. Mental disorders must be connected with some kind or degree of physical derangement; the difference can only legitimately be taken upon the *detectibility* of the affection in one case, and not in another.

or we deride all your vain attempts to designate, and divide, and classify.

Disqualifications for general purposes are generally either sufficiently obvious, or do not come within the scope of *medical* jurisprudence; though it may become a medical, as well as moral and legal question, how far a deaf and dumb individual, for instance, is a responsible being for imputed crimes. The simulation of these states is sometimes of difficult detection. Foderé gives a curious account of an impostor who eluded for years the vigilance of trial, but at length overreached himself, in pretending to have been a pupil of the celebrated Abbé Sicard, that he might have an opportunity of communicating his ideas in writing. The Abbé, however, denied the possibility of his having been deaf and dumb from his birth, because he spelt like the common people, and wrote in the manner of language which one *hears;* whereas the real deaf and dumb write by the language they *see.*

Official instructions that are given in reference to military disqualifications are sufficiently definite; but the presence of all organic disease, or the remains of these, although the individual may not at the time be much inconvenienced, ought to be preventive of admission into military service. Dr. Smith has himself seen, he says, men suffering under chronical and incurable complaints, try to get into the army, for the sole purpose of having the benefit of that professional treatment, with which the king's service is supplied in so distinguished a manner.

Disqualifications for the Matrimonial State.—Erectio ac intromissio penis, cum emissione seminis, are necessary to constitute the act of copulation on the part of the man. The want of the secretory organs (the testes) is, of course, a want of procreating power; but it must be the absolute, the total want of them. If only one exist, the individual is not, therefore, impotent; nor if they both remain above the abdominal ring. With respect to the penis, mere diminution alone can hardly be received as a constituent of importance; and to decide whether the termination of the urethra, at an unnatural part, would interfere with the process of impregnation, requires "more accurate acquaintance with the mysteries of impregnation than we can boast of." Strictures, scirrhous enlargements about the neck of the bladder, enlargement of the prostate gland, and other impediments of this kind, may be present, and, of course, ought to be duly considered as to their degree or extent. *Moral* or ideal impotence is much more common, perhaps, than physical, and it will be often for the medical Practitioner, either to assure or (as in the case related by John Hunter) cheat his patients into confidence of

power. Impotence, on the part of the female, must arise from the incapacity of the vagina to admit the penis. "The vagina has been found altogether impervious, both by unnatural closure, and by the integrity of a hymen of unusual strength and thickness." Sometimes its parietes adhere together, either from birth, or as a consequence of inflammation; "sometimes the vagina opens preternaturally. A communication has not unfrequently been discovered between it and the rectum; while it has also occurred that the passage has terminated in the latter." Sterility cannot be properly charged upon a female, unless certain diseases in some part of the uterine system exist. Medical men are sometimes called to deliver their opinion on the prudence of the conjugal union in cases of hereditary tendencies to insanity, gout, scrofula, pulmonary consumption, &c.; all of which, when strongly marked, may render marriage unjustifiable.

With respect to pretended disqualifications, Dr. Smith well observes that, "after all that might be written on it, particular cases will require some particular exertion of ingenuity for which no instruction could previously provide." Feigned epilepsy is, of course, without the incontractility of the pupil when exposed to light. "The foaming at the mouth has been frequently detected as being produced by a piece of soap contained within it." If professional men are duly on their guard, the want of congruity and consistency in pretended complaints will generally afford sufficient clues to their detection.

The "Miscellaneous Questions," of which Dr. Smith treats, are utero-gestation, sexual ambiguity, or hermaphrodites, and personal identity.

The signs and circumstances of pregnancy it was, of course, deemed necessary to notice in a work like the present, the first of which is the disappearance of the catamenia at the usual period; neither this, however, nor sickness, loss of appetite, nor even enlargement of the mammæ, can be depended upon as absolute indications that the uterus is impregnated. "We can never pronounce, with any degree of certitude, until matters are so far advanced as to indicate the state of the case upon external examination. It is, therefore, unnecessary to have recourse to this until about the fourth month." The medical Practitioner must, however, recollect, that abdominal enlargements take place from various causes; and even the sensation of quickening has been falsely supposed from "flatus in the intestines, pulsation of the large vessels, nervous irritation, and the force of the imagination." "As pregnancy advances, a change is manifested in the breasts, which is generally of a conclusive nature. They

enlarge, and the nipples are not only distended, but are surrounded by a dark colour. If the interruption of the menstrual flow be from pregnancy, the derangement of health will cease about the third month; whereas, if the suppression have been owing to any other circumstances, the consequent disorder will continue, and even increase, till the discharge be restored. "About the sixth month the cervix uteri begins to show an enlargement and shortening in its progress to obliteration before the termination of the period." Between the fifth and sixth month, upon examination *per vaginam*, the tumour "feels like a globe with a neck appended to it." In endeavouring to ascertain whether a delivery have taken place, we are to place the hand upon the abdomen, and if the examination be early, "we shall be able to feel the uterus contracted like a round body within the loose folds of the abdominal parietes; and a very slight attention will enable us to ascertain that the vagina is large and flabby, and that a fluid is issuing from it." The state of the mammæ will, of course, be investigated. *Post mortem* examinations, it is now pretty generally allowed, will not absolutely show whether the woman has borne children, since corpora lutea may take place without impregnation, and even without coitus. These bodies, however, in the virgin ovaria, may, in general, be distinguished from those that are the consequence of impregnation, by their smaller size.

Two hundred and eighty days are considered in this country as constituting the full period of utero-gestation. "The French law seems to allow about twenty days more to the legitimate period of gestation than ours. I am of opinion, however," says Dr. S., "that *real* excess beyond nine months is by no means frequent, and certainly never great." "Joubert fancies that the duration of gravidity is influenced by sexual indulgence — allowing the period of nine months where moderation is observed; and that excess of intercourse will accelerate, while abstinence after conception will retard, the time of delivery, even to eleven months."

"The questions of extra-uterine conception and super-fœtation have not been noticed. The former undeniably takes place, and is more a matter of curiosity than of any practical import here. The mysterious bearings of the latter I am unable to clear up. It has had its advocates and its opponents. Among the former may be reckoned Foderé, who enters into the merits of the subject, and adduces both facts and arguments in its favour."

In treating of sexual ambiguity, Dr. Smith admits, that although it be difficult to allow the mixture of sexes in one individual, some extraordinary approaches to such participation are well authenticated. Any difficulty in respect of personal

identity must be of such extremely rare occurrence, that it is only worth while merely to advert to its possibility.

The following are the sentences with which the book before us concludes:—

"In a case where Louis was consulted, and which Foderé formally analyses 'as the best matter that could be offered on the subject,' the following were the questions—the last only of which bears upon the professional acumen of the Physician:—1st, Is it possible to mistake a man of sixty years of age for one of forty-six?—2d, Are spots, known by the name of *mother's marks*, (nævi materni—in the original, *envies*, *desirances*) capable of establishing a distinction?—3d, Is it possible to be deceived with regard to the marks of resemblance which pervade the whole body of this person and those of the other?—4th, Are the cicatrices, observed in this person, from the same cause as those in the other?

"The minuteness with which Foderé has treated this subject, as well as the space occupied by other topics of no greater professional importance, both by this excellent author, and many (I should perhaps say *most*) who have preceded him, cannot be imitated here. I should now proceed under the discouraging impression, that every additional sentence would be but a make-weight to a book, that has already exceeded the limits within which it was my original intention to have comprised it. If to this intention I have been unable to adhere, I console myself with the hope, that the most voluminous portions will not be considered the least important."

The reviewer's apology for the conscious fault of undue dilation, in some parts, and too much compression in others, must be formed from the allowed difficulty of concentrating the substance of a work principally made up of didactic matter.

Considérations Pratiques sur la Maladie des Femmes en couche, connue sous le nom de Péritonite, et de Fièvre Puerpérale. Par J. B. VANDENZANDE, M.D. &c. &c. à Anvers.

Practical Observations on that Disorder to which Lying-in Women are subject, known by the name of Peritonitis, and Puerperal Fever. By J. B. VANDENZANDE, M.D. &c. &c. Antwerp.

WE had proposed to present an analysis of this work under that division of the REPOSITORY which is devoted to Foreign Science; as, however, we have been supplied with matter for that department of our work, and as it is the wish of the individual, from whom we received the present publication, that an early notice should be taken of it, we have thought it due, both to courtesy and to the real importance of its subject-matter, not to permit another month to pass

without calling the attention of our readers to its interesting contents.

The leading principles this treatise inculcates, are, that the inflammatory affection of the peritonæum, to which lying-in females are obnoxious, is, by no means, to be regarded in the same light with ordinary inflammation; and that blood-letting to any extent, in this disorder, is almost invariably fatal—the proper substitute for this, and indeed the proper treatment of the malady, consisting in a due administration of calomel and opium, with occasionally mercurial frictions:—

"En présentant" says the author, "aujourd'hui l'historique d'une méthode de traitement, qui, par ses succès soutenus entre les mains de plusieurs de nos collègues, acquiert l'importance d'une véritable conquête en médecine, nous le faisons avec la confiance que doit inspirer une expérience de près de douze années, et l'assentiment des médecins qui ont reconnu sa supériorité; nous le faisons avec l'espoir fondé de la voir bientôt approuvée par tous ceux, à qui aucun préjugé, aucun esprit de système, ne fera récuser une base aussi solide.

"On remarquera peut être que, dès l'an 1784, le docteur Rob. Hamilton a publié ses observations sur l'emploi du mercure et de l'opium dans les maladies inflammatoires; mais ni lui, ni ses successeurs, n'en ont fait l'objet d'une application constante et presqu'exclusive aux péritonites puerpérales. Dans la plupart des maladies où il s'en est servi, la saignée, toujours indiquée, en avait précédé l'usage; et d'ailleurs, nous n'avons vu nulle part, que les doses de ces médicamens aient été portées aussi haut que par nous, soit à l'intérieur, soit en frictions. Il n'est pas même fait mention, chez les médecins anglais, de ce dernier mode d'administration dans ces sortes de maladies.

"Pour donner la mesure de l'opinion que nous avons dû nous faire des immenses avantages attachés à cette méthode de traitement, plutôt que pour faire valoir notre propre ouvrage, nous pourrions dire que c'est une découverte, dont la médecine peut s'honorer. Après avoir tenté toutes les autres méthodes, après les avoir comparées, *nous avons reconnu que les différences aboutissaient, en résultat, au même nombre de victimes.* Comment n'insisterions-nous pas sur la préférence à donner à celle, qui non seulement guérit dans l'état chronique, mais qui, en outre, est encore propre, comme on le verra, à prévenir le développement de cette affreuse maladie?"

The first portion of this tract consists of preliminary remarks on the nature of puerperal fever; it then proceeds to a development of the principles of treatment recommended; it, thirdly, enters into a detail of this treatment; and, lastly, adduces authority in favour of the plan pursued.

All that we know of this formidable disease may be comprised, says the author of the pamphlet before us, in the following propositions:—

1. Every female, of whatever age or temperament she

may be, and whatever may have been the circumstances of her accouchement, is obnoxious to an affection of the abdomen, which is of so formidable a kind, that she is likely soon to become its victim, either if the nature of the malady be misunderstood, or an appropriate treatment be not instituted early.

2. This disorder is an actual inflammation of the peritonæum. It may either attack suddenly, or in an insidious manner,—either pass quickly into a state of gangrene, or become chronic, engendering sero-purulent matter, and adhesions of the membrane affected to adjacent organs. Properly treated, it terminates like other inflammations in resolution. Sometimes it is simple, at other times complicated.

3. Its predisposing causes are pregnancy, with consequent distention of the peritonæum, and the sudden want of resistance, which that membrane, and the viscera it envelopes, undergo immediately upon delivery; extreme sensibility of the whole abdomen, and the intimate sympathy which exists between the womb and the peritonæum; previously existing maladies which may have called forth this sympathy; every obstacle to the due secretion of milk; an hysterical constitution; in a word, the moral state, and nervous condition of the female, augmented by the pains of labour, and by mental anxiety, and subject to the precipitate alternation of fear and joy, before and subsequent to delivery.

4. The exciting causes of puerperal fever are sometimes sufficiently obvious, at other times extremely obscure. When the inflammation by which it is constituted follows a tedious and difficult labour, arises in consequence of a fall or a blow, a sudden or protracted exposure to cold, the excitation of passion, forcible extraction of the placenta, considerable discharges of blood, &c. the exciting source, or sources, become abundantly manifest. But we often find females, when every thing has appeared to be going on prosperously and kindly, suddenly become the subject of fever, ushered in by rigors and nausea, and attended with acute pain in some part of the abdomen, with suppressed lochia, and milk, and, in fact, having puerperal fever distinctly marked. In this case, to what is the disease properly ascribable? Whether is it sympathy, or action suddenly directed to the interior by a particular condition of the skin, of the mammæ, or of the generative organs, that has brought about the derangement? Or is the effect attributable to a general tendency, to a particular cachexy induced by pregnancy, or to some state of the air, natural or artificial, in which the subject of the complaint is enveloped?

5. The pathognomic signs of the existence of the malady,

are, pain and tumefaction of the abdomen — a continued fever, a sharp, small, and quick pulse, anxiety of countenance, and an inability to lie on either side.

6. Abdominal pain is the main symptom, to which the Practitioner should be alive; and the malignity or mildness of the malady is declared by its greater or less intensity. This pain *precedes* the suppression of the discharges, and does not follow it, as the metastatic theorists would seem to suppose.

7. An observant Practitioner will not confound the pains of puerperal fever with those which are called after-pains.

8. Puerperal fever is marked by an abdominal pulsation, sometimes hard, but always very quick, and mostly weak, small, and sharp. The skin is arid, sweats partial, tongue sometimes dry and very red, at others moist, and laden with mucus. Thirst and bilious vomitings, with other affections of the stomach, are also frequent. When the fever is complicated with other general ailments, the most fearful symptoms by which it is marked are an extreme prostration of strength, sharpness of features, recession of violent pain, with a tumid and tense state of the abdomen.

9. Puerperal fever may attack a patient at any time after delivery, from the first to the tenth or fifteenth day.

10. Its termination in resolution has been stated, by the writers in the *Dictionnaire des Sciences Médicales*, to take place from the fifth to the tenth day. But, if treated according to the new method, it will not last at times more than four days.

Suppuration generally takes place when the disorder termi nates fatally; and this event usually occurs between the fifth and seventh day.

When it degenerates into a chronic state, it may last for months, and at length occasion a purulent accumulation, presenting the aspect of dropsy. Its gangrenous termination is, of course, very rapid.

11. Examination after death proves not only that the peritonæum is the seat of the distemper in question, but that it is an actual inflammation of this membrane, and displays the characteristics of serous inflammation; generally, the morbid secretion of the membrane, which is its consequence, is not of the nature of milk, as some have imagined, and upon this supposition built hypotheses respecting the disorder's production.

12. Dissection after puerperal fever has always shown proofs of peritonæal inflammation, not inflammation of the womb. It is rarely that the intestines themselves present any

traces of the disordered state having extended itself to these organs.

13. This fever, when it exists in an uncomplicated form, is certainly not contagious; sometimes, however, it is epidemic, especially in large hospitals, as in those of Vienna, Paris, and London. When other epidemic distempers are prevalent, the malady in question, uniting itself with the prevailing disease, becomes still more formidable; and it is only on this account that puerperal fever can be said to be more dangerous in hospital than in private practice; for, whatever may be the condition, external or internal, of the sufferer, the danger from it is always extreme.

14. This being admitted, it follows that an effectual method of treatment must be considered as a very important desideratum. Hitherto, those who have regarded the disease as an inflammation of the womb, or of the intestines, have trusted to general and local blood-letting, emollient fomentations, saline medicines, purgatives, &c.; while others, who ascribed it to putridity and malignity of humours, have had recourse to camphor, musk, kino, blisters, &c. The partisans of the doctrine of metastasis recommended vomiting; and, in some cases of consecutive inflammation, this plan was pursued with success, under the mistaken notion, however, of a specific peculiar fever attaching itself to lying-in women. But emetics having been used without distinction in all cases of puerperal inflammation, (even where it had not been sympathetic upon mucous and gastric irritation, as in the epidemic of the Hotel Dieu in 1782,) the want of success attending the practice brought it into discredit. It may, indeed, be laid down as an axiom, that, in all cases where the peritonæal affection is primary, vomiting only exasperates the symptoms. We may add here, that the term puerperal fever, having been so vaguely applied, has been the occasion of much confused theory and malpractice. But, even when at last the peritonæal disorder came to be distinctly recognised, and the common methods of treating inflammation vigorously instituted,—

"Il faut le dire," says the author in conclusion, "ce traitement rationnel ne fut pas couronné de plus de succès; *et la péritonite puerpérale continua à faire presqu'autant de victimes de toutes les malheureuses qui en furent atteintes.* C'est du moins ce que nous fûmes à même d'expérimenter, dès cette même année 1808, ayant été appelé à la place de médecin de l'hôpital civil, chargé d'y donner les leçons de physiologie et d'accouchemens."*

* In the translation of the above aphorisms, we have used considerable freedom, from the necessity of concentration. We believe, however, that, throughout, we have preserved the sense of the author.

Under these circumstances, the trial of calomel and opium suggested itself as likely to prove a supply to the important desideratum; and it has been adopted, according to the reports of the book before us, with astonishing success. With this combination as an internal remedy, mercurial frictions are occasionally joined; and we are told that whenever mercurial action was excited in the salivary glands, the cure of the disease was regarded as certain; indeed, the internal treatment was not altogether confined to the calomel form of mercury, since when the salivary secretion failed of being excited by this medicine, recourse was had to other preparations; for instance: "l'oxidule *noir* de mercure"—the "mercure soluble d'Hahnemahn," in grain doses, repeated five times in the twenty-four hours, without the addition of either opium or henbane. This last medicine (henbane), we frequently find used as an addition to the calomel, in place of opium, as in the following case, which is the tenth and last of the series.

"A woman, twenty-two years of age, of a lymphatic temperament, was delivered safely and well of her second child; but was exposed, on the tenth day of her confinement, to a cold and damp air: she was, in consequence, seized with general shiverings, and pains in the abdomen. In the evening the lochia ceased, and the secretion of the milk was arrested; the abdomen was now become so tumid, and tender at one part, that the smallest pressure excited pain which was almost insupportable; there was hiccup, difficult and frequent respiration, the pulse was small and exceedingly quick, the face covered with a cold sweat, and thirst was intense.

"Eight powders were ordered, containing each two grains of calomel, and the same quantity of extract of henbane, with a little acacia gum, to be taken every two hours; a blister was applied to the chest, and barley water ordered for the drink.

"On the next day the fever was found to have remitted; there had been two loose stools during the night; the hiccup was less frequent, abdomen less tender, though still very drummy (ballonné); the breathing was more free, and a general moisture pervaded the skin. A repetition of the remedies was prescribed. In the evening there was a little exacerbation of the symptoms; there had been three evacuations from the bowels. An anodyne mixture, with syrup of poppies, was ordered.

"On the third day the fever was less; the hiccup was increased; abdomen only painful when pressed; breathing free. Two stools. Let the same powders be continued.

"Fourth day. The lochia and milk have reappeared: no fever. Abdomen natural; the gums slightly swollen. The same prescription.

"Fifth day. Convalescent. Forty-eight grains of calomel taken during the illness."

After the recital of the cases, the author goes on to say that, in all instances of abdominal pains, happening to lying-

in women, and which do not readily yield to ordinary measures, from nine to twelve grains of calomel, with the same quantity of henbane extract, and some gum acacia powder, administered in three doses, will almost invariably occasion the pain to subside by the next day, without any extraordinary evacuations having taken place. Sometimes the calomel is administered alone, as a purgative, in the dose of eight or ten grains, when there appears to be a particular necessity for procuring stools; and a single dose is usually sufficient; occasionally it is requisite to repeat it on the following day.

" Nous eûmes," says Dr. Vandenzande, " bientôt acquis la certitude que ce remède, administré à propos et associé à la jusquiame, à l'opium, ou à tel autre médicament, suivant l'exigeance des cas infiniment variés que présente l'état des femmes en couche, est très souvent aussi propre à prévenir la péritonite, qu'à en triompher dans son état aigu et chronique.

" Aussi est-il vrai de dire, et tous les jeunes médecins et les élèves qui fréquentent l'hôpital en sont témoins, que les péritonites, de communes qu'elles étaient auparavant, sont devenues très rares dans nos salles d'accouchemens, et que depuis plusieurs années, aucune femme n'y est morte de cette maladie.

" Or, cet heureux changement ne peut être attribué qu'à l'étonnante promptitude avec laquelle le principe du mal et la douleur sont enlevés par les premières prises de calomel et d'opium, donnés ainsi de prime abord. L'inflammation, qui n'est encore que l'exaltation de la sensibilité, un spasme violent, est étouffée avant qu'elle n'ait eu le tems de s'établir fixément; et le médecin, qui, dans ces circonstances, est parvenu à dissiper les douleurs du ventre, peut se vanter d'avoir *sufflaminé* la phlegmasie dès son apparition. Mais, nous ne saurions trop le répéter, l'efficacité de ces médicamens, soit comme prophylactiques, soit comme curatifs, dépend de leur prompte administration, à doses suffisantes, dès les premiers signes qui peuvent faire craindre la maladie, ou les premiers symptômes qui témoignent son existence.

" Toutefois, nous n'entendons parler de cette maladie, que lorsqu'elle est marquée par tout ce qui caractérise, comme nous l'avons dit, l'inflammation du péritoine. Quant aux diverses fièvres, muqueuse, putride, bilieuse ou ataxique, dont les accouchées peuvent être atteintes, surtout dans un hôpital, et qui ne sont pas toujours exemptes de tension et de douleur du ventre, nous les traitons comme si les femmes n'étaient point en couche, et sans nous occuper sérieusement du lait ni des lochies, qui ont disparu. En cela nous nous trouvons parfaitement d'accord avec Mr. Gastellier, et nous n'avons eu comme lui, qu'à nous louer de cette pratique.

" D'un autre côté, lorsque des signes d'adynamie et d'ataxie viennent compliquer la péritonite puerpérale, nous lui associons des remèdes propres à combattre ces symptômes, sans changer rien au traitement principal, qui a pour but de dompter l'inflammation: tels

sont l'acétate d'ammoniaque, l'esprit de corne de cerf, le camphre, le musc, l'éther, l'infusion d'arnica, de valériane, d'angélique, etc., les vésicatoires, les sinapismes, etc.

" Mais, qui dira avec certitude, qu'une fièvre essentielle (si toutefois il y en a), étrangère à la fièvre symptomatique qui existe, puisse venir compliquer la péritonite, et mériter à elle seule un traitement particulier? Nous pouvons assurer ne l'avoir jamais vu.

" On peut tout expliquer et tout confondre sous le nom de *fièvre puerpérale*, comme font encore beaucoup de médecins; mais celui qui est jaloux de mériter ce titre et de justifier la confiance de ses concitoyens, peut-il rester étranger aux progrès de la science au point de méconnaître la nature d'une affection si dangereuse, et les travaux qui ont conduit à sa découverte?"

The author proceeds to relate a few cases of peritonæal and other affections, independent of the puerperal state; but in which the mercurial plan, founded upon lymphatic, nervous, and membranous susceptibilities, was adopted in the treatment; he then enters upon some general intimations with respect to the principles of treatment, and prophylactic management of lying-in women, and concludes by remarking, that in the greater number of puerperal cases, in which peritonæal affection succeeds the delivery, considerable discharges of blood have already taken place. Thus is an argument furnished against the propriety of further depletion: the disease, indeed, he contends, is brought on by a violent spasm, the result of the debilitating causes that have operated, and becoming concentrated upon the serous membrane of the abdomen — " Cette membrane se trouve d'ailleurs très disposée à cette impression, et devient, en peu d'instants, *faute de réaction* suffisante, le siège de l'espèce de phlogose qui lui est propre, (inflammation fausse ou érysipélateuse, adhésive ou exsudative des auteurs.") " It is not, he adds, " an impetus of blood, it is not a *vis à tergo*, which we are called upon, in puerperal fever, to combat; but, on the contrary, an excess of nervous sensibility, the consequence of exhausted power, and profuse discharges."

With respect to the propriety, both of the principles and the practice, the reader must judge for himself. For ourselves, we have long looked, with a feeling of fear, upon the freedom with which blood-letting has been advised, in these cases, by some of our contemporaries, and most certainly have witnessed many fatal cases of puerperal fever, in which the lancet had been liberally used. But, in the present instance, the reviewer is not an obstetrician; and some of our puerperal brethren, if we go too far in our anti-sanguinary intimations, will be ready to charge upon us the *ultra crepidam*

fault. We, therefore, desist; conscious that they are the best qualified to pass judgment on the much agitated and important question of the most effectual and safest means to subdue that frightful malady, which has been the subject of the preceding disquisition.

As our printer tells us we have room, which we had feared was not the case, we will just add the first of the four examples (cited by the present intelligent and candid author) of peritoneal inflammation, unconnected with the puerperal state. It will be seen to be a case of peritonitis complicated with symptoms of ileus:—

"Matthew Pletch, forty-two years of age, of a sanguine temperament, and by trade a joiner, being engaged in boring a large piece of wood, had his abdomen violently pressed against by the iron bar which he was using. He fainted and fell, and was taken to the hospital insensible. There was a considerable bruise found over the umbilical and right iliac regions. When the man recovered his senses, and had explained the cause of the accident, his pulse was slow and hard; the bruised parts were very painful, and the pain was much increased by pressure. A dozen leeches were immediately applied, and eight grains of calomel administered. In the evening, there was a sensation as if of a heavy weight in the abdominal cavity; digestion was impeded, there were frequent eructations, nausea, and vomiting of a mucous matter mixed with some broth that had been taken in the morning. The abdomen was tumefied. Fomentations of an emollient kind were applied, and enemas injected, which speedily returned.

"On the nexth day, the 5th of July, the pains in the abdomen were acute; constipation was obstinate, thirst intense, and the pulse hard and frequent. Venesection to twelve ounces. The calomel repeated in the same dose. Fomentations and enemas likewise repeated. These last were not now returned.

"Sixth. Contracted hard pulse; vomiting of stercoraceous matter; urine high-coloured; decidedly-marked fever: dry skin; laborious respiration. Calomel sixteen grains, with the same quantity of extract of henbane, to be administered in four equally divided doses. Continue the fomentations and glysters.

"In the evening the same symptoms; constipation, hiccup, &c. Let two drams of mercurial ointment be rubbed upon the abdomen and thighs.

"Seventh. Contracted, slow, small pulse. Continue the same treatment.

"Eighth. Symptoms much the same; marked diminution of strength. Add ten grains of camphor to the preceding powders. Let the injections be omitted.

"Ninth. Signs of commencing salivation; swelling of the gums and bad taste in the mouth. A large evacuation from the bowels: the excrement is blackish and hard. Abdominal pain and hardness diminished. The hiccup ceased; still, however, there are vomitings.

" Nothing ordered to be taken internally to-day, excepting some broth, but the mercurial friction continued, and the fomentations made with poppy infusion persisted in.

" Tenth. Towards the evening, the vomitings have ceased; the bowels are free; full salivation established. Nothing but the fomentations prescribed.

" Eleventh. Cessation of all symptoms of ileus. Appetite returned. Eggs, with broth, permitted. From this day, until the sixteenth, when he left the hospital, he became progressively convalescent, and the salivation ceased. He has ever since enjoyed perfect health."

PART III.

SELECTIONS.

On the Black Rete Mucosum of the Negro, being a Defence against the Scorching Effect of the Sun's Rays. By Sir Everard Home, Bart. F.R.S.

[From the Transactions of the Royal Society for 1821. Part I.]

To ascertain the use of the black colour of the rete mucosum in the negro, has occupied the attention of many physiologists; and I confess that this subject formed the first investigation in which I ever engaged. Fruitless, indeed, were my attempts; and when I learnt that black surfaces absorbed heat, and raised the temperature several degrees beyond any others, I gave the matter up in despair. Two years ago my attention was again called to this inquiry, upon being told by our late excellent president, that a silver fish, in a pond at Spring Grove, during a very hot summer, immediately after some trees by which the pond was shaded were cut down, was so much exposed to the sun's rays as to have its back scorched, the surface putting on the same appearance as after a burn, and rising above the scales of the surrounding skin. I saw the fish several times, and directions were given to send it to me when it died; but I was not so fortunate as to receive it.

This extraordinary circumstance brought to my recollection one not less so. In crossing the Tropic in April 1781, at twelve o'clock at noon, in a voyage to the West Indies, I had fallen asleep upon deck, lying upon my back, having a thin linen pair of trowsers on, and I had not slept half an hour, when I was awakened by the bustle attending the demand of forfeits on crossing the Line, and found the inside of the upper part of both thighs scorched, the effects of which have

never gone off: but till now I could not imagine how it happened, always suspecting it to be the effect of the bites of insects; but I never satisfied myself upon that subject.

The effect of the sun's rays upon the fish under water, led me to suspect the mixture of light and heat to be the cause of this scorching effect.

To ascertain the truth of this opinion, I made the following experiments:—

Exp. 1.—In August, 1820, I exposed the back of my hand to the sun at twelve o'clock, with a thermometer attached to it, another thermometer being placed upon the table, with the same exposure. That on my hand stood at 90°, the other at 102°. In 45 minutes blisters rose, and coagulable lymph was exuded, which became vascular under my eye: the pain was very severe.

Exp. 2.—I exposed my face, my eyelids, and the back of my hand, to water heated to 120°: in a few minutes they became painful; and when the heat was further increased, I could not bear it.

Exp. 3.—I exposed the back of my two hands to the sun's rays, with a thermometer upon each; the one hand was uncovered; the other had a covering of black cloth, under which the ball of the thermometer was placed. After ten minutes, the degree of heat of each thermometer was marked, and the appearance on the skin examined. This was repeated at three different times. The

1st time the thermometer under the cloth 91°, the other 85°
2d time 94 91
3d time 106 98

In every one of these trials the skin was scorched that was uncovered; the other had not suffered in the slightest degree; there was no appearance of perspiration on either hand.

Exp. 4.—The back of a negro's hand was exposed to the sun with a thermometer upon it, which stood at 100°; at the end of ten minutes the skin had not suffered in the least.

Exp. 5.—During the eclipse of the sun on Sept. 7, 1820, I exposed the back of my hand to the rays concentrated by a double lens of half an inch focus, at three different periods of the eclipse. When the heat to a thermometer was 75°, that is from 47 to 57 minutes past one o'clock, the concentrated rays felt warm, but gave no pain, although applied for ten minutes.

When the heat to a thermometer was 79°, that is at fifteen minutes past two o'clock, the concentrated rays in four minutes gave pain; in five minutes blistered the skin, and produced dots of coagulable lymph, which became vascular under the eye.

When the heat to a thermometer was 82°, that is at half-past two o'clock, the concentrated rays in three minutes gave pain; in four, the part was blistered, and the pain could not longer be endured.

Exp. 6.—Sept. 8, 1820, at eleven o'clock, the heat in the sun 90°; the concentrated rays applied to my naked arm produced a vesicle. This experiment was repeated when the heat was 84°, and in seven minutes a blister formed on the arm.

Exp. 7.—Sept. 9, 1820, eleven o'clock, the thermometer in the sun at 90°. The concentrated rays applied to a piece of black kerseymere cloth, made tight round my arm for fifteen minutes, gave no real pain, and left no impression whatever on the skin, although the nap of the cloth had been destroyed.

This experiment was repeated with white kerseymere, the heat at 86°; in fifteen minutes a blister was formed.

Repeated with Irish linen, the thermometer 86°. In fifteen minutes a blister was formed, and coagulable lymph thrown out, which had become vascular.

The same experiment was made with a white handkerchief loose upon the hand, the heat 83°. In fifteen minutes an inflammatory blush was produced over a surface of several inches extent, which almost immediately disappeared on withdrawing the hand from the sun's rays.

Exp. 8.—Sept. 12. The sun's heat at noon 85°. The concentrated rays applied to the back of the hand of a negro from Grenada, for fifteen minutes, produced no visible effect; at the first moment he felt a stab going inwards, but that went off, and afterwards he had no pain.

From these experiments, it is evident that the power of the sun's rays to scorch the skin of animals is destroyed when applied to a black surface, although the absolute heat, in consequence of the absorption of the rays, is greater.

The same wise Providence which has given so extraordinary a provision to the negro for the defence of his skin, while living within the tropics, has extended it to the bottom of the eye, which otherwise would suffer in a greater or less degree when exposed to strong light; the retina, from its transparency, allowing it to pass through without injury.

That the nigrum pigmentum is not necessary for vision, but only provided as a defence against strong light, is proved by its being darker in the negro than the European, and being of a lighter colour in fair people than in dark, and therefore lightest in those countries furthest removed from the effects of the sun.

In the monkey it is dark, and in all animals that look upwards.

In all birds exposed to the sun's rays the nigrum pigmentum is black. In fishes, the basking shark, which lies upon the surface of the ocean, has a nigrum pigmentum. The turbot and skate, which lie upon banks of sand in shallow water, have nigrum pigmentum.

In all ruminating animals and birds of prey, there is a lucid tapetum at the bottom of the eye.

The owl, that never sees the sun, has no nigrum pigmentum.

The mackarel has the bottom of the eye lucid as quicksilver.

The *coup de soleil,* met with in the West Indies, the effects of which I have seen, I attribute to the scorching effect of the sun's rays upon the scalp.

The Egyptian ophthalmia I consider to be the effect of the sun's rays, and the glare of reflected light.

I have stated the fact of the scorching power of the sun's rays being destroyed when they are applied to black surfaces, but have not gone further. Sir Humphry Davy, to whom I showed these observations, immediately explained it. He said the radiant heat in the sun's rays was absorbed by the black surface, and converted into sensible heat.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

[For the two following papers we are indebted to a new and unknown Correspondent, from whom we shall be happy to receive further communications. The papers are translated from the Medicinisch-Chirurgische Zeitung. We present them to the reader without comment.]

Kurzgefasste Beyträge zur Kentniss der Natur der Entslehung, der Verhüthung u Heilung der Hospital-brandes. Von Dr. Wilhelm Werneck.

Short Essays towards the Knowledge, Nature, Origin, Prevention, and Cure of the Hospital Gangrene. By Dr. W. Werneck.

This work is highly spoken of, as the result of considerable experience, and accurate observation, during much medical service, in various parts of Europe. The disease in question may arise in the system generally; or by the action of external noxious powers upon a wound without contact; or by the application of contagion in the form of inoculation. Like many other animal poisons, it produces no effect when

introduced into the stomach. A man labouring under hospital gangrene, by the advice of a gipsey, swallowed daily, for fourteen days, some of the ichor of the sore spread upon bread, without the cure being in the least retarded. The author considers the hospital gangrene contagion to be a modification of that of typhus; although the smell differs, which is merely owing to the evolution of carbonated and sulphurated hydrogen, during the organic decomposition. The typhus, or hospital fever, as well as hospital gangrene, may attack the same individual repeatedly; and the latter, when left to itself, without any other aid, except clean dressings, may be cured, as well on board of transports as when perfectly isolated in separate rooms. With regard to the therapeutic part, acids appear to be the chief applications, and of these the acetous hold the first rank; next stands the oxygenated and common muriatic acid, sulphuric and nitric acid; and, in the last place, the other strong vegetable acids. In the first period, or that of infection, the treatment is local, and consists, 1st., in the effusion of icy cold water upon the infected sore, until the limb is benumbed; and to be repeated twice or thrice a day; after this the sore is to be covered with cloths, wet in very cold water. 2d. The application of charpie, dipped in acetous acid, to the whole surface of the sore. Over the charpie compresses are applied, dipped also in acetous acid, and repeated thrice a day until the inflammation and pain be checked; instead of the above, the aqua vulneraria of Theden, or citric acid, may be used. Camphor and sugar, rubbed into powder, with gum arabic, is also usefully applied to the gangrenous sores. Ol. terebinth., myrrh, pulv. cort., Peruv. cort., querci, &c., were of no use. Treatment of the disease in its second or typhous period, and first locally; mineral acids, especially diluted muriatic acid, are highly useful: charcoal alone was not useful; but ℥j. of the powder mixed with ʒiij. of camphor, rubbed fine with sugar, and one dram of powdered opium, were of great use, especially in union with acids. The surface of the sore being washed clean with water, it is to be covered, for a few lines in thickness, with the above powder, and upon this is laid charpie, wet with diluted muriatic, nitric acid, or aqua vulneraria Theden, so that the powder itself be quite moistened. Over all is laid a wet compress, secured by bandage; this is removed twice daily; six or eight applications destroy the fœtor, and the disease is stopped in its progress. The general treatment is the mild antiphlogistic. To remove nervous anxiety and sense of fulness of stomach, infus. valer. cum rhæi. Emetics generally do harm, unless decisive symptoms of saburra. For costiveness, emollient clysters; and for pain

in the wound, opium, or pulv. Doveri. 3d. Treatment of the third and last period; this is local or general: the first removing the morbid process, by destroying the contagious product, and the source of the disease: 1st., by mineral acids, particularly by oxygenated muriatic acid; 2d., by actual cautery; and, 3d, by caustic alkali. The acid is preferred by our author to the actual cautery. The application of the pure marine acid must be made with great care, that all the infected parts may be destroyed. The lint must be dipped in the acid, and fill the whole surface of the sore: to be repeated twice a day until the specific smell, and the peculiar pain of the sore, be removed; every cavity and hollow part must be daily syringed with acid, by means of a glass syringe. The concentrated acid is not required in the primary hospital gangrene. The sulphuric acid acts like the muriatic acid; but being more caustic, requires more care in the vicinity even of large blood-vessels: hence, the author diluted it with one-fifth of water. He has no experience of nitrous acid, except what is said by Gerson. The mode of using the cautery is, after cleansing the sore with charpie, to cover it with powdered charcoal, and the iron of a white heat is to be applied until the whole charcoal be ignited. Amputation is considered as a *desperate* remedy, to be used only, a, when the disease makes rapid strides in the *elbow* and knee-joints, and the large vessels are likely to burst; b, in violent hæmorrhage not to be restrained by any other means; c, when a limb has separated, or the soft parts of the hand or foot are destroyed. The general treatment requires *decoction of bark* and *acetous acid*, or, in its stead, strong vinegar, lemon-juice, diluted mineral acids, particularly the acid Halleri; but if the stomach does not bear mineral acids, alum, in form of powder, with sugar and calamus aromaticus. Camphor is an important remedy. If the sensorium be affected, the dulcified acids, with valerian and angelica, are useful, and particularly the acetous æther. In stupor, excellent effects were often produced by a tincture of the capsic. annuum, ʒj. of which, coarsely powdered, was digested three days in ℥j. of acetous æther. Of this tincture ʒj. in ℥ss. of decoct. cort. Peruv. When the burning pain requires opium, it must be given with a large dose of camphor, or acetous æther, or liquor min. Hoffmanni. In colliquative sweats and diarrhœa, simaruba is to be substituted for bark. A cool treatment and proper diet are recommended.

Poison from Smoked Sausages.

In Wurtemburg, in the space of a few years, seventy-six people fell sick from eating smoked sausages; of these thirty-

seven died, whilst the others *bore*, for months and even years, the effects of this dreadful poison. The author knows, accurately, thirty-six of these cases, twelve of which were under his immediate care; and of these three died. Of the thirty-six cases above mentioned, twenty-two had eaten of puddings made of liver; of these twelve died: and twelve had eaten of blood puddings, (*black puddings*), of whom three died. The poisoning from (blood) black puddings, seems to have been first noticed; because, in the year 1802, the *edict* of the Collegium Archiatrale mentions these only. The first case appears to have occurred in 1793, when at Kleinenshof, in Wildbad, thirteen people were, in the month of April, taken ill from eating a black pudding, of whom six died. In 1799, seven people, at Mossberg, were seized with illness; likewise in April, from eating a blood or black pudding, two of whom died. In 1802, at Meitenberg, in Calu, five persons were taken ill, one of whom died. Similar instances occurred, in April 1800, at Reichenberg, and in April 1801, at Stammheim, after eating of blood or black puddings. Six people also fell ill at Sulzer Oberampt, from eating black puddings; one of whom died.

In the treatment of such cases, the inspection of the body after death, and the chemical analysis of the sausages, the prussic acid has been chiefly looked after; but, hitherto, quite in vain. The alkalies which, taken internally, act so specifically in cases of poison from prussic acid, were here of no effect; and the same was noticed of acids. The blood assuming a bluish black, or dark colour, in the dead bodies, was referred to the union of the prussic acid with the oxydized iron of the blood; but this may more maturely be accounted for, by considering that in those who die paralytic from eating these puddings, particularly when the nerves of the lungs are affected, the blood is disturbed in the oxydizing process, and of course, the arterial blood must be dark coloured. The spleen, also, which is especially affected in cases of poison from prussic acid, was found quite unchanged in six bodies, killed by eating these poisoned sausages. When the prussic acid does not occasion immediate death, violent cold, alternating with burning heat, is produced; and the spleen enlarges so much as to render its situation and size as visible as if taken out of the body: but in those poisoned by sausages, this was not noticed; but quite another series of appearances were visible, hitherto unnoticed from the effects of prussic acid. But still the effects from the poisoned sausages more nearly resembled those from prussic acid than from narcotic vegetables, in having more frequently paralysis: but not having delirium attending. The poison from sausages differs

also from that of narcotic plants, in not terminating so speedily, but continuing for months or years. The body, also, after death, has great muscular rigidity, and does not emit the least smell; whereas vegetable poisons, especially belladonna, cause great tumefaction after death, and very speedily a highly putrid smell. From experiments on animals, with the empyreumatic ligneous acid, it appears to resemble, in its effects, the prussic acid as well as the sausage poison, but still differs considerably from both.

It is remarkable that the poison exists only in smoked sausages, and occurs only at one time of year; namely, in April, when cold and heat alternate. Frozen meat, when thawed spontaneously, very soon putrefies. Smoked sausages are repeatedly frozen and thawed about this time of year (April), during which the putrefactive process is carried on, and the sausages, which act deleteriously, become not merely sour, but highly fœtid and putrid; whereas, those which only taste sour, are often eaten in great quantities, without any bad effect. Masses of fat are often produced in these sausages, and the middle of some of those made from liver, and which had been partly eaten, were found changed into a soft, greasy substance, of a highly fœtid smell. Notwithstanding these remarks deserve attention, it is not easy to explain why, in other places, under similar circumstances, these noxious effects are not produced; and smoked sausages have often been eaten after twelve months preservation, without any bad effect.

This poison, introduced into the stomach, in the course of twenty-four hours, seldom sooner, but often later, excites an irritation of the exhalant arteries, a sensation of heartburn, and a vomiting of a bloody fluid. The muscles of the eye, particularly the external straight muscles, become immoveable; the eye is fixed, and feels to the patient like wood; the eyelids hang over the palsied eye; the pupil is widely dilated, incapable of contracting, and no longer sensible to light. There is no secretion of tears, and, in consequence of the paralysis of the muscles, the axis of vision is turned inwards, and double vision produced: the mechanism of the eye being more affected than vision itself. The voice is hoarse, or even quite suppressed. The respiration is greatly oppressed, as when the nerves of the lungs are tied; and the change of the venous into arterial blood is materially disturbed. This happens particularly in fatal cases. The heart is excessively weakened in its action, and its pulsation cannot be felt, although the arteries of the extremities beat, feebly indeed, but in no proportion to the suppressed pulsation of the heart. The large veins of the neck swell, though the

carotids rather collapse, and the neck itself is *puffed* up. In some cases, though not fatal ones, the pulsation of the heart is not felt for months, notwithstanding that of the carotids is perceptible. Deglutition becomes extremely difficult; the œsophagus becomes a dead motionless tube, through which fluids pass mechanically into the stomach, and return on the slightest motion. More solid food, which does not gravitate so readily, cannot be swallowed at all. Secretion is suppressed in all the mucous cavities of the system, from the greatest of all, the stomach, to the lachrymal or salivary ducts, and the excretories of the lingual glands. No saliva is secreted, nor is mercury, internally or by friction, capable of exciting it. Not a tear is secreted; not a particle of wax is seen in the ear; and even marks of dryness appear in the Eustachian tube. There is no mucus in the nose, nor in the œsophagus, nor intestines. Fluids easily penetrate into the trachea, and return by the posterior nares; and, in consequence of this deficiency of mucus, extreme pain is felt from swallowing every fluid which excites any sensation of heat or cold, sweetness or acidity. Owing to the paralysis of the nerves, and the total want of mucus in the bowels, the stools are *suppressed*, and, if they are afterwards produced, they are clayey, hard, and without bile; for even the excretion of bile is restrained. Every dissection has shown the secretion in the liver to be increased, and the gall bladder turgid with bile. There is no delirium, and the mind is composed. Sleep is enjoyed during the night, but without dreams. Many are inclined to anger, perhaps from retained bile. Even the secretion of the gastric juice is affected, and it appears to possess a power of acting morbidly upon the coats of the stomach. The hunger is often very considerable, but the thirst still more so. The fingers lose their sense of feeling. The hearing and smell are unchanged, as is the taste. The patient has no feeling of heat or cold, but only of the stronger stimuli, as sinapisms, &c. The skin is perfectly dry, and cold as that of a corpse. No debility is felt in the spine; the patient can sit erect for days without weariness. There is no trembling in the hands, but a sense of weariness in the lower extremities, without any paralytic affection. No semen is secreted, and the testes diminish. The urinary secretion is as much increased as in diabetes, and can only be voided with great trouble, and in a standing posture; and often only mechanically by cough. During convalescence, the internal membrane of the mucous cavities is often separated, and a new one formed. The emaciation is excessive, chiefly in the face, least of all in the back. The depression of strength is so great, that, for months, the patient cannot bear the slightest

motion without fainting; not so much from muscular debility, as from the defect of power in the heart. During life, no rigidity is observed in the muscles, but it occurs immediately after death. The extremities become like those of a frozen corpse, and the abdominal muscles are contracted, and hard as a board. The body emits not the smallest mark of putrefaction. Inflammation is observed even in parts where the poison cannot be supposed to act chemically; and it is particularly remarked in all bodies, that, in the vicinity of the cardia, there is an inflamed spot about the size of the palm of the hand.

The following are the appearances, on dissection, of a man who died on the fourth day after being poisoned by sausages: The limbs were perfectly inflexible; and the muscles hard, as if frozen. The skin was of a yellowish white colour. The large veins of the neck were much swollen. The brain and nerves were natural, but the vessels filled with blue-coloured blood. Where the larynx terminates in the trachea, a bloody mucus was effused. The epiglottis was in a natural state. The upper part of the throat had many loose folds, and appeared shrivelled like a membrane which had been long macerated in water. The uvula was white and shrivelled; the tongue contracted, short, thick, hard as a piece of board, and covered with a black fatty matter. The pleura was considerably inflamed, partially adhering to the lungs, which last were marbled with black, and of a livery consistence. The inner membrane of the trachea was inflamed, and covered with an exudation of bloody slime. The heart was lax, soft, and wrinkled. The ventricles contained some black greasy blood, and the cavities were inflamed. The arch of the aorta was internally of a clear red, equal in colour to morocco leather, with a slight yellowish tinge. The diaphragm and liver were natural; the gall-bladder inflamed on its internal surface, and containing rather a bloody than a bilious fluid. The stomach, internally, was inflamed in a radiate manner, but, near the cardia, was inflamed for the space of the breadth of a hand. The œsophagus, internally, was of a natural appearance, but, externally, where the par vagum runs down it, of a red cinnabar colour. The stomach contained some spoonsful of a pultaceous matter, and the bowels much flatus. The small intestines were partly brown, partly lead colour, and contained but little fluid excrement: the large intestines contained a quantity of a clayey kind of fæces. This kind of fæculent matter, like hard balls, is found in all similar cases. The large intestines were entirely discoloured; and near the rectum was a large gangrenous spot, and a dark-red kind of excrement, like the contents of a black pudding. The fæces, the contents of the stomach, and the

blood, were chemically tested, in search of mineral poisons, or prussic acid, but nothing of this kind was found. The urinary bladder was empty, and inflamed externally; but less so internally. The spleen, pancreas, and kidneys, were sound. The vena cava contained much black blood. The body had not the slightest disagreeable smell.

The above facts, then, as to their cause, being still involved in much obscurity, the treatment must depend upon the circumstances of the case, and must be directed by the practical Physician, according to the general rules of art. The author, in a note, makes the following observation, which deserves to be noticed: "For several years past I have made use of snow or pounded ice, when they could be procured, to disinfect recent primary syphilitic ulcers, and have never seen any ill effects from it; nor have I ever seen lues the consequence. After the third or fourth time of using this remedy, the ulcers become quite clean, and cicatrization speedily takes place." Whether this practice will prove a sufficient preventive of the disease, however, time alone must determine.

Notice.—The "Medicinisch-Chirurgische Zeitung," originally published at Saltzburg, by Doctors Hartenkeil and Metzler, and afterwards continued by Dr. Johann Nepomuck Chrhart, has maintained a very high reputation in Germany, from its commencement in 1790. From the beginning of the present year, it has been published by its learned editor, Dr. Chrhart, at Innsbruck, and will, no doubt, continue to support its well established celebrity.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

City of London Lying-in Charity.—The Physicians to the above Charity, for delivering Poor Married Women at their own houses, will receive a few Medical Students to the practice of the Institution; frequent opportunities will be afforded them not only of delivering women in natural and difficult labours, but also of seeing the method of treating the various diseases to which women are liable after delivery.

Terms—Three Months, £3. 3s.—Six Months, £5. 5s.—Perpetual, £10. 10s.

For particulars apply to Mr. Greening, Consulting Accoucheur, Aldersgate Street.

Extract from Broughton in reply to Hastings on the Nerves.—The galvanised rabbit had remained singularly quiet the whole time, breathing freely, and with no more apparent distress than the twitches

usually produced by the galvanic influence, which in this case was uninterruptedly kept up. The other rabbits laboured strongly in their breathing. They were all three killed at the same period, and their stomachs successively opened. In the two non-galvanised rabbits, digestion had *scarcely made any progress*, but in that galvanised, it was *perfect*, in the manner, to all appearance, avowed by Dr. Wilson Philip and his supporters. However we may differ in opinion, as to the real state of the food in the non-galvanised rabbits, as to Dr. Wilson Philip's theory, or, as to the cause of the formation of chyme and chyle being found under the influence of a galvanic battery, Dr. Wilson Philip cannot be denied the merit of correctness in his assertions, (hitherto almost universally distrusted) relative to the simple fact of a certain power of galvanism producing digestion, after dividing the eighth pair of nerves, under circumstances in which it is impeded without the galvanism.

It is also the merit of Dr. Wilson Philip, that he has discovered cause for believing that nerves can convey the influence of the brain, after being simply divided, and no means used to obstruct their extremities coming into contact.

It is proper to state that the President, and several members of the Royal Society, and of the Colleges of Physicians and Surgeons, among whom were Mr. Brodie and myself, inspected the progress of these experiments, which were carried on under the constant superintendence of Dr. Wilson Philip.

Cathartine, the active Principle of Senna.—MM. J. L. Lassaigne and H. Fenuelle, in examining senna, obtained from it a particular principle called by them cathartine. A decoction of the leaves was made, and, after being filtered, was precipitated by acetate of lead. The precipitate collected was diffused through water, and sulphuretted hydrogen passed through it. The liquor filtered was evaporated to dryness, and digested in alcohol, and the alcohol solution then evaporated to dryness. It contained acetate of potassa, which was separated by alcohol acidulated by sulphuric acid; then filtering to separate the sulphate of potassa insoluble in this fluid, precipitating the excess of sulphuric acid by acetate of lead, decomposing this latter salt by sulphuretted hydrogen, filtering again and evaporating to dryness, a substance was obtained, which was considered the purgative principle of senna.

This substance is uncrystallizable, of a reddish yellow colour, of a particular smell, a bitter and nauseous taste. It is soluble in alcohol and water in all proportions; insoluble in ether. Its extract becomes moist in the air. It purges in very small doses.—*Annales de Chimie*, xvi. p. 20.

Piperin, or the active Principle of Pepper.—Piperin is a new vegetable principle, extracted from black pepper, by M. Pelletier. To obtain it, black pepper was digested in alcohol repeatedly, and the solution evaporated, until a fatty resinous matter was left. This, on being washed in warm water, was left of a good green colour, and had a hot and burning taste; it dissolved readily in alcohol, and less readily in sulphuric ether; concentrated sulphuric acid gave it a fine scarlet colour. A solution of this substance in hot alcohol, being left for some days, deposited a number of small crystals. These were purified by repeated solution and crystallization in alcohol and ether, and from the mother liquors, fresh portions were obtained, which, on purification, were like the first. It is to be remarked, that the pepper taste they possessed when impure, gradually left them as they became more and more pure; so that the white crystals scarcely had any taste, while it seemed to accumulate in the fatty matter, as the crystalline portion was separated from it: and also, that the purer the crystals, the finer the tint produced in them by sulphuric acid. The fatty matter left, also reddened by sulphuric acid; but it is a question whether it would do so when pure.

The crystalline matter forms colourless four-sided prisms, with single inclined terminations; they have scarcely any taste. Boiling water dissolves

a small portion; but it is insoluble in cold water; it is very soluble in alcohol, less so in ether; it is soluble in acetic acid, and crystallizes from it in feathery crystals. Weak sulphuric, nitric, and muriatic acids, do not dissolve or act on it; the strong acids decompose it. Strong sulphuric acid gives it a blood-red colour, which disappears on adding water; the substance does not seem altered if the acid has not remained long on it. Muriatic acid acts in the same way, producing a deep yellow colour. Nitric acid makes it greenish yellow, orange, and then red; the ultimate action of the acid produces oxalic acid, and yellow bitter principle. It melts at about 212°. Destructive distillation converts it into water, acetic acid, oil, and carburetted hydrogen gas: no ammonia is formed. Oxide of copper converts it into carbonic acid and water. After comparing this substance with other vegetable principles, particularly with resins, M. Pelletier concludes by considering it a peculiar substance, and names it *Piperin.*

The fatty matter left, after extracting the piperin, is solid, at a temperature near 32°; but liquefies at a slight heat. It has an extremely bitter and acrid taste; it is very slightly volatile, and tends rather to decompose, than rise in vapour; that which passes over is not so piquant and acrid, as the undistilled part, but is more balsamic. It dissolves easily in alcohol and ether, and unites to fatty bodies; and, with the exception of its taste, does not differ from them. From the result of the distillation, it may be considered as composed of two oils: one volatile and balsamic; the other more fixed, and containing the acridness of the pepper.

Finally, M. Pelletier finds in pepper — 1, Piperin; 2, a very acrid concrete oil; 3, a volatile balsamic oil; 4, a gummy coloured matter; 5, an extractive principle; 6, malic and tartaric acids; 7, starch; 8, bassorine; 9, lignin; 10, earthy and alkaline salts. He concludes, also, there is no vegetable alkali in pepper; that the crystalline substance of pepper is a peculiar body; that pepper owes its taste to an oil but little volatile; and that a strong similarity exists between common pepper and cubebs, as illustrated by the analysis of M. Vauquelin, of the latter compared with the former. — *Annales de Chimie,* xvi. p. 337.

Medical and Physiological Prize Questions. — 1. The Royal Academy of Sciences, at Paris, have proposed the following prize question for 1823: "To determine, by precise experiments, the causes, either chemical or physiological, of animal heat." It is particularly required that the heat emitted by a healthy animal in a given time be ascertained, as well also as the quantity of carbonic acid produced in respiration, and that the heat thus produced, be compared with that occasioned by the formation of as much carbonic acid from the combustion of carbon. The prize will be a gold medal of 3,000 francs value. The memoirs are to be sent in before July 1, 1823.

The Society of Sciences and Arts of Utrecht has announced the following question for competition: "Are there characteristic signs sufficient to distinguish always with certainty, the true cancer from other maladies which resemble it? If so, what are these signs? Ought this malady to be considered as the effect of an indisposition of the whole body, or as only local? If it is to be considered as an indisposition of the whole body, can external remedies, whether amputation, or the remedy applied by the religious of the convent of Rus, or the corrosive remedies, especially arsenic, contribute to the cure or the alleviation of the malady? or ought they to be considered as all equally hurtful? When the malady has not yet the characteristic signs of true cancer, but when there is reason to fear it may become so, and when it may as yet be considered as a local evil, what external remedies may then be applied with sound hope of success? and what are those which should be considered as hurtful?"

A METEOROLOGICAL TABLE,

From the 21st of JULY to the 20th of AUGUST, 1821.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Min.		Therm. Max	Min.	Rain Gauge	Winds.	Weather.
21	29	40	29	29	72	54		SW..	1 Sun..
22	29	19	29	10	69	49	25	SE.SW..	1 Rain... 2 Sun..
23	29	28	29	26	70	47		SE.SW..	1 Sun..
24	29	31	29	11	75	53	32	SW..SbE.	1 Sun...3 Rain....
25	29	38	29	30	71	53	05	SW..	14 Show. 23 Sun..
26	29	44	29	44	70	52	10	SW..	1 Sun.. 1 Show..
27	29	63	29	60	67	47	08	WbN..	1 Sun.. and Show. 4 Starl...
28	29	62	29	61	69	47		W..	13 Sun... 2 Sh. Sun.. 4 St....
29	29	64	29	54	69	52		W..	1 Sun.. 3 Cloud...
30	29	60	29	46	72	52		SW..SE.	13 Cloud.. 2 Sun. 4 Starl...
31	29	61	29	57	70	52		W..	1 Cloud... 2 Sun...
1	29	66	29	52	69	48	22	SSE.W.	1 Cloud.. 2 Rain... 3 Sun...
2	29	72	29	72	71	50		WNW.	13 Sun.. 2 Cloud.. 4 Starl..
3	29	77	29	72	76	52		W.	1 Sun..
4	29	70	29	64	82	57		S.SW.	1 Cloud... 2 Sun..
5	29	62	29	53	82	59	47	S.	1 M... 2 Sun.. 4 Lt.. Ra....
6	29	57	29	56	71	52		SSE.SW..	1 Cloud... 2 Sun..
7	29	62	29	34	70	50		SW..	1 Sun...
8	29	10	29	05	76	52	27	SSE.SW..	14 Rain... 2 Sun.. 3 Cloud...
9	29	04	28	89	66	49		SW...	1 Sun...
10	29	08	28	99	64	48	03	SW....	1 Sun.. & Show.
11	29	45	29	36	68	50	26	W..	1 Sun.. 2 Show... & Sun.
12	29	60	29	57	72	45		WSW..	1 Sun..
13	29	53	29	40	68	56		SW.	1 Sun.. 2 Show.
14	29	55	29	47	71	53		Variable.	1 Cl...2 S.. &Sh. 3 S.. 4 M...
15	29	61	29	58	76	62		Variable.SW.	1 Cloud.. 2 Sun..
16	29	69	29	62	74	54	05	SW..	1 Cloud.. 2 Sun.. & Show.
17	29	63	29	62	70	53		SW..	124 Cloud... 2 Sun.
18	29	78	29	78	70	45		W.	1 Sun...
19	29	82	29	82	70	54		SW..	1 Sun....
20	29	91	29	89	77	54		SW.NW.NE.	1 Sun....

The quantity of rain during the month of July was 1 inch and 17-100ths.

Observations on Diseases at Richmond.

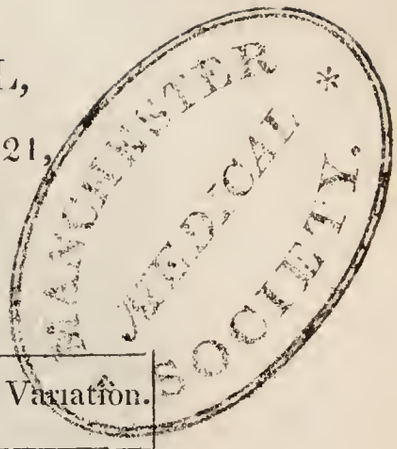
The disorders under treatment were, Abortio, Aphthæ, Cephalalgia, Colica, Cynanche maligna, Cynanche tonsillaris, Diarrhœa, Dyspepsia, Febris catarrhalis, Febris simplex, Hæmatemesis, Hydrops, Obstipatio, Odontalgia, Ophthalmia, Pertussis, Podagra, Scabies, Vaccinia, Vermes, and Vertigo,

THE METEOROLOGICAL JOURNAL,

From the 19th of JULY to the 20th AUGUST, 1821,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.



D.	Moon.	Rain.	Therm.			Barom.				De Luc's Hygrom.		Winds.		Atmo. Variation.		
20			66	68	63	29	87	29	82	57	57	WSW	SW	Clo.	Fine	——
21		,09	67	69	60	29	80	29	80	57	56	WSW	WSW	Fine	Rain	Fine
22	☾	,08	63	68	57	29	61	29	61	59	56	WSW	W	Sho.	——	Fine
23		,10	60	65	59	29	62	29	71	55	57	W	SW	Sho.	——	——
24		,19	61	66	58	29	76	29	63	57	57	WSW	SW	Sho.	——	——
25		,16	63	69	59	29	71	29	91	58	57	WSW	W	Sho.	——	——
26		,12	63	68	59	29	94	29	97	57	56	WSW	W	Sho.	——	Fine
27			63	67	58	29	96	30	03	55	56	W	NW	Fine	——	——
28			60	63	58	30	00	29	97	56	55	ESE	WNW	Clo.	——	——
29	☾	,05	61	64	58	30	03	30	02	55	57	W	W	Fine	——	Rain
30		,19	59	63	60	29	93	29	89	61	68	WSW	W	Rain	——	Clo.
31		,03	63	69	63	29	95	30	00	68	63	WNW	WNW	Clo.	——	——
1			65	69	60	29	97	29	96	63	62	W	W	Fine	——	Clo.
2		,11	63	68	63	30	11	30	11	61	60	W	W	Fine	Rain	Clo.
3			66	71	62	30	11	30	11	61	60	WNW	SSW	Fine	——	——
4			67	72	63	30	00	30	05	57	55	S	SE	Fine	——	——
5			67	74	65	29	94	29	93	55	56	S	SE	Fine	——	——
6	☽		70	75	60	29	86	29	96	58	57	W	W	Fine	——	——
7		,05	65	69	58	30	01	30	02	57	57	WNW	WNW	Fine	Sho.	Fine
8		,30	60	62	60	29	86	29	61	58	62	WSW	W	Rain	——	——
9		,16	62	67	57	29	65	29	55	62	57	WSW	W	Rain	Clo.	Fine
10			59	66	57	29	52	29	53	56	54	W	W	Clo.	Fine	——
11		,20	62	68	50	29	60	29	75	57	55	W	WNW	Clo.	Rain	Clo.
12			61	68	60	29	90	29	97	53	56	NW	WNW	Clo.	——	Fine
13	☉		64	69	60	30	00	29	91	55	56	WNW	W	Clo.	Fine	Clo.
14		,23	60	65	56	29	80	29	79	60	59	WSW	N	Rain	——	Clo.
15			59	69	60	29	94	30	02	59	59	N	WNW	Fine	——	——
16			65	71	64	30	07	30	08	60	60	W	WSW	Clo.	Fine	Clo.
17			67	74	64	30	14	30	04	61	60	W	W	Clo.	Fine	Clo.
18			66	69	57	30	06	30	14	60	60	NW	NW	Clo.	——	Fog
19			61	70	60	30	18	30	20	57	55	SW	SSW	Fine	——	——

The quantity of rain that has fallen in the month of July was 2 inches and 25-100ths.

A REGISTER OF DISEASES

Between JULY 19th, and AUGUST 20th 1821.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	9		Febris *Remit. Infant.*	8	1
Abscessio	4		Fistula	2	
Amenorrhœa	8		Furunculus	1	
Anasarca	11	1	Gastritis	1	
Aneurisma	3		Gastrodynia	11	
Anorexia	5		Gonorrhœa *pura*	9	
Aphtha *lactentium*	2		Hæmatemesis	1	
—— *anginosa*	2		Hæmoptöe	10	
Apoplexia	3	1	Hæmorrhois	5	
Ascites	2		Hepitalgia	1	
Asthenia	12	1	Hepatitis	9	
Asthma	10	3	Hernia	1	
Bronchitis *acuta*	2		Herpes *Zoster*	1	
—— *chronica*	3		—— *circinatus*	1	
Cancer Uteri	1		—— *præputialis*	1	
Carbunculus	3		Hydrocele	2	
Cardialgia	3		Hydrocephalus	4	1
Carditis	1		Hydrothorax	2	2
Catarrhus	13		Hysteralgia	8	
Cephalalgia	15		Hysteritis	1	
Chlorosis	2		Icterus	3	
Chorea *lateris sinist.*	1		Impetigo *figurata*	2	
Cholera	31		—— *scabida*	1	
Colica	9		Ischias	1	
—— *Pictonum*	3		Lepra	1	
Convulsio	5		Leucorrhœa	3	
Cynanche *Tonsillaris*	12		Lichen *simplex*	2	
—— *maligna*		1	—— *syphil.*	1	
—— *Parotidea*	6		Lithiasis	1	
—— *Pharyngea*	1		Lupus	1	
Diabetes	1		Mania	2	
Diarrhœa	13		Melancholia	2	
Dolores	4		Menorrhagia	14	
Dysenteria	7	1	Morbi Infantiles*	28	1
Dyspepsia	28		—— Biliosi*	20	1
Dyspnœa	2		Neuralgia	1	
Dysuria	1		Obstipatio	8	
Ecthyma	4		Odontalgia	9	
Eczema	4		Ophthalmia	15	
Enteritis	3		Otalgia	3	
Entrodynia	6		Palpitatio	1	
Epilepsia	4		Paralysis	6	1
Epistaxis	5		Pericarditis	2	
Erysipelas	6	1	Peripneumonia	9	
Erythema *læve*	3		Peritonitis	7	
Febris *Intermittent*	3		Pertussis	4	
—— *catarrhalis*	11		Phlegmasia *dolens*	1	
—— *Synocha*	1		Phlogosis	2	
—— *Typhus mitior*	5		Phrenitis	2	
—— *Synochus*	8		Phthisis Pulmonalis	18	6

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Pleuritis	9		Scrofula	2	
Pleurodyne	3		Spasmi	2	
Pneumonia	5	1	Splenitis	3	
Podagra	5		Strictura	1	
Pompholyx *diutinus*	1		Syncope	1	
Porrigo *larvalis*	3		Syphilis	10	
——— *favosa*	3		Tabes Mesenterica	2	1
Prolapsus	1		Tetanus	1	1
Prurigo *mitis*	5		Tic Douloureux	2	
——— *formicans*	1		Vaccinia	26	
——— *senilis*	1		Varicella	3	
Psoriasis *guttata*	3		Variola	14	2
Pyrosis	1		Vermes	14	
Rheuma *acutus*	14		Vertigo	14	
——— *chronicus*	22		Urticaria *febrilis*	2	
Rubeola	10	1	——— *evanida*	1	
Scabies	50				
Scarlatina *simplex*	15		Total of Cases	802	
——— *anginosa*	3		Total of Deaths		28
Scorbutus	2				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases; with a Notice from Mr. Fitch, *respecting Colchicum Seeds.*

Affections of the bowels have been frequent, but by no means severe. Children have been more than commonly the subjects of those biliary derangements that are incident to the present season; beyond this, we do not recollect any thing as having signalized the present month by any particular mark. The following curious circumstance we extract from a letter just received from Mr. Fitch, of Ipswich:—

"Jeremiah Goldsmith, aged between sixty and seventy, called on me about the 1st of July, at which time he was so violently affected with rheumatism, as to deprive him of the use of his side, and prevent his walking without great difficulty. I engaged him to collect colchicum seed for me; and, between the 7th of that month and August the 1st, he brought at different times nearly five hundred weight.

"Observing, each time he came, a gradual improvement in his walking, and that he appeared more free from pain, I questioned him as to the cause; his answer was, that he had taken no medicine, but attributed it to his occupation of *shelling the seed*, as during that employ he daily found himself improving, and the same circumstance occurred to him the previous year, when engaged in the same business."

Quarterly Report of Prices of SUBSTANCES *employed in* PHARMACY.

		s.	d.
Acaciæ Gummi elect.	lb.	4	0
Acidum Citricum		25	0
—— Benzoicum	unc.	4	9
—— Sulphuricum	P. lb.	0	8
—— Muriaticum		2	0
—— Nitricum		3	6
—— Aceticum	cong.	4	6
Alcohol	M. lb.	5	0
Æther sulphuricus		12	0
—— rectificatus		14	0
Aloes spicatæ extractum	lb.	6	8
— vulgaris extractum		8	0
Althææ Radix exot.		1	8
Alumen		0	6
Ammoniæ Murias		2	0
—— Subcarbonas		2	9
Amygdalæ dulces		2	10
Ammoniacum (Gutt.)		7	9
—— (Lump.)		4	6
Anthemidis Flores		1	6
Antimonii oxydum		6	0
—— sulphuretum		1	0
Antimonium Tartarizatum		8	0
Arsenici Oxydum		2	6
Asafœtidæ Gummi-resina	lb.	6	6
Aurantii Cortex		5	0
Argenti Nitras	unc.	5	8
Balsamum Peruvianum	lb.	24	0
Balsamum Tolutanum	none	0	0
Benzoinum elect.		8	6
Calamina præparata		0	6
Calumbæ Radix elect.		4	6
Cambogia		7	6
Camphora		6	0
Canellæ Cortex elect.		3	6
Cardamomi Semina	lb.	8	6
Cascarillæ Cortex elect.		2	6
Castoreum	unc.	4	0
Castor Russ.	oz.	20	0
Catechu Extractum	lb.	4	0
Cetaceum		3	8
Cera alba		4	0
—— flava		3	9
Cinchonæ cordifoliæ Cortex (yellow)		6	9
—— lancifoliæ Cortex (quilled)		10	0
—— oblongifoliæ Cortex (red)		12	0
Cinnamomi Cortex		15	0
Coccus (Coccinella)	unc.	2	6
Colocynthidis Pulpa	lb.	10	6
Copaiba		6	0
Colchici Radix (sic.)		6	0
Crocei stigmata	unc.	5	0
Cupri sulphas	lb.	1	0
Cuprum ammoniatum		9	0
Cuspariæ Cortex		3	0
Confectio aromatica	lb.	9	0
—— Aurantiorum		3	0
—— Opii		4	6
Confectio Rosæ caninæ		1	8
—— Rosæ gallicæ		2	3
—— Sennæ		2	0
Emplastrum Lyttæ		6	3
—— Hydrargyri		3	6
Extractum Belladonnæ	unc.	1	6
—— Cinchonæ		3	0
—— Cinchonæ resinosum		4	6
—— Colocynthidis		3	6
—— Colocynthidis comp.		1	6
—— Conii		0	6
—— Elaterii		30	0
—— Gentianæ		0	6
—— Glycyrrhizæ	lb.	5	8
—— Hæmatoxyli	unc.	0	6
—— Humuli		0	6
—— Hyoscyami		1	0
—— Jalapæ	1*s.* 6*d.* Res.	3	9
—— Opii		5	3
—— Papaveris		0	0
—— Rhæi		2	0

		s.	d.
Extractum Sarsaparillæ		2	0
—— Taraxaci		0	6
Ferri subcarbonas	lb.	1	6
— sulphas		1	6
Ferrum ammoniatum		5	6
— tartarizatum		4	0
Galbani Gummi-resina.		8	8
Gentianæ Radix elect.		2	4
Guaiaci resina		8	0
Hydrargyrum purificatum		5	6
—— præcipitatum album		8	6
—— cum creta		4	8
Hydrargyri Oxymurias	unc.	0	8
—— Submurias		0	10
—— Nitrico-Oxydum		0	6
—— Oxydum Cinereum		1	6
—— Oxydum rubrum		5	8
—— Sulphuretum nigrum		0	4
—— —— rubrum		0	6
Hellebori nigri Radix	lb.	2	4
Ipecacuanhæ Radix		18	0
—— Pulvis		22	0
Jalapæ Radix		5	4
—— Pulvis		6	0
Kino		7	6
Liquor Plumbi subacetatis	P. lb.	1	3
— Ammoniæ	2 6	5	6
— Potassæ		3	3
Linimentum Camphoræ comp.		5	6
—— saponis comp.		3	6
Lichen			
Lyttæ	lb.	12	0
Magnesia		10	6
Magnesiæ Carbonas		3	6
—— Sulphas		0	6
Manna		5	4
— communis		3	6
Moschus pod, (32*s.*)	in gr. unc.	48	0
Mastiche	lb.	8	0
Myristicæ Nuclei		10	0
Myrrha		8	0
Olibanum		3	6
Opopanacis gummi resina		23	0
Opium (Turkey)		58	0
Oleum Æthereum	oz.	2	6
— Amygdalarum	lb.	3	6
— Anisi	unc.	1	6
— Anthemidis		5	0
— Cassiæ		7	0
— Caryophilli		5	0
— Cajuputi		5	0
— Carui		1	6
— Juniperi Ang.		3	6
— Lavandulæ		3	6
— Lini	cong.	6	6
— Menthæ piperitæ	unc.	3	6
— Menthæ viridis Ang.		4	6
Pimentæ	unc.	5	6
— Ricini optim.		6	0
— Rosmarini	unc.	0	9
— Succini 2*s.* 6*d.* —— rect.		5	0
— Sulphuratum	P. lb.	1	4
— Terebinthinæ		1	0
— —— rectificatum		1	8
Olivæ Oleum	cong.	16	0
Olivæ Oleum secundum		12	0
Papaveris Capsulæ	(per 100)	2	6
Plumbi subcarbonas	lb.	0	8
— Superacetas		2	0
— Oxydum semi-vitreum		0	6
Potassa Fusa	unc.	0	8
— cum Calce		0	6
Potassæ Nitras	lb.	1	2
— Acetas		10	0
— Carbonas		3	6
— Subcarbonas		1	0
— Sulphas		1	2
— Sulphuretum		4	0
— Supersulphas		1	2

		s.	d.
Potasse Tartras	- - -	3	6
— Supertartras	- - -	1	4
Pilulæ Hydrargyri	- - unc.	0	6
Pulvis Antimonialis	- -	0	8
— Contrayervæ comp.	- -	0	4
— Tragacanthæ comp.	-	0	4
Resina Flava	- - lb.	0	4
Rhæi Radix (Russia)	- - -	30	0
Rhæi Radix (East India) opt.	- -	10	6
Rosæ petala	- - -	11	0
Sapo (Spanish)	- -	2	8
Sarsaparillæ Radix (Lisbon)	-	6	6
Scammoniæ Gummi-Resina	- unc.	2	9
Scillæ Radix siccat. opt.	lb.	5	0
Senegæ Radix	- - -	3	6
Sennæ Folia	- - -	6	0
Serpentariæ Radix	- -	6	0
Simaroubæ Cortex	- -	4	0
Sodæ subboras	- - -	2	9
— Sulphas	- - -	0	6
— Carbonas	- -	6	0
— Subcarbonas	- - -	1	6
— — exsiccata	- -	5	0
Soda tartarizata	- -	2	4
Spongia usta	- - unc. -	1	2
Spiritus Ammoniæ	- M. lb.	4	6
— — aromaticus		4	6
— — fœtidus	- -	5	0
— — succinatus		5	6

		s.	d.
Spiritus Cinnamomi	- - -	3	6
— Lavandulæ	- -	5	0
— Myristicæ	- - -	3	6
— Pimentæ	- -	3	
— Rosmarini	- -	4	0
— Ætheris Aromaticus	-	6	6
— — Nitrici	- -	5	6
— — Sulphurici	- -	6	0
— — Compositus	-	6	6
— Vini rectificatus	- cong.	30	0
Syrupus Papaveris	- - lb.	2	0
Sulphur Sublimatum	-	1	0
— Lotum	- - -	1	6
— Præcipitatum	-	2	6
Tamarindi Pulpa opt.	- -	5	0
Terebinthina Vulgaris	-	0	10
—— Canadensis	-	6	0
—— Chia	-	10	8
Tinct. Ferri muriatis		5	0
Tragacantha Gummi	- - -	6	4
Valerianæ Radix	- - -	1	4
Veratri Radix	- - -	2	6
Unguentum Hydrargyri fortius	-	5	0
—— —— Nitratis	-	3	6
—— Nitrico-oxydi	-	3	9
Uvæ Ursi Folia	- - -	3	6
Zinci Oxydum	- - -	7	6
— Sulphas purif.	- - -	3	6
Zingiberis Radix opt.	- - -	4	0

Prices of New Phials per Gross.——8 oz. 70*s*.—6 oz. 58*s*.—4 oz. 47*s*.—3 oz. 43*s*.—2 oz. and 1½ oz. 36*s*.—1 oz. 30*s*.—half oz. 24*s*.

Prices of second-hand Phials cleaned, and sorted.———8 oz. 46*s*.—6 oz. 44*s*.—4. oz. 33*s*. 3 oz. 30*s*.—2 oz. and all below this size, 25*s*.

MONTHLY CATALOGUE OF BOOKS.

The Medico-Chirurgical Transactions, published by the Medico-Chirurgical Society of London. Vol. II. Part I. 8vo. 9s.

A Treatise on Dyspepsia, or Indigestion; with Observations on Hypochondrias and Hysteria. Second Edition, greatly enlarged. By J. Woodforde, M.D. 8vo. 5s.

The Art of Invigorating and Prolonging Life, by Food, Clothes, Air, Exercise, Wine, Sleep, &c.; and Peptic Precepts, pointing out agreeable and effectual Methods to prevent and relieve Indigestion, and to regulate and strengthen the Action of the Stomach and Bowels. By the Author of the Cook's Oracle, &c. 12mo. 7s. Second Edition.

Elements of Agricultural Chemistry, in a Course of Lectures for the Board of Agriculture, delivered between 1802 and 1812. By Sir H. Davy, Bart., &c. Third Edition. 8vo. 15s.

Observations on Certain Affections of the Head, commonly called Headachs, with a View to their more complete Elucidation and Cure; with Remarks on Digestion and Indigestion. By J. Farmer, Member of the Royal College of Surgeons, &c. &c. 2s. 6d.

Remarks on the Epidemic Yellow Fever, which has appeared at Intervals on the South Coast of Spain since the Year 1800. By Robert Jackson, M.D. 8vo. 8s.

NOTICES OF LECTURES.

Dr. Davis, Physician to the Queen's Lying-in Hospital, to the Lying-in Charity, &c. &c., will commence his First Winter Course of Lectures on the Theory and Practice of Midwifery, and on the Diseases of Women and Children, at his Theatre, No. 29, George Street, Hanover Square, on the first Tuesday in October, at half-past Ten o'Clock in the Forenoon.

Dr. Clutterbuck will begin his Autumn Course of Lectures on the Theory and Practice of Physic, Materia Medica, and Chemistry, on Mon-

day, 1st October, at Ten o'Clock in the Morning, at the General Dispensary, Aldersgate Street, where particulars may be had.

Mr. Curtis will commence his next Course of Lectures on the Anatomy, Physiology, and Pathology of the Ear, on Monday, 1st October.

Dr. Gregory and Dr. Clowes, Physicians to the St. George's and St. James's General Dispensary, will begin their Winter Course of Lectures on the Theory and Practice of Physic, and on the Materia Medica, on Wednesday, 3d October, at Nine o'Clock in the Morning, at No. 14, Old Burlington Street.

St. George's Medical and Chemical Lectures.—These Lectures will commence the first Week of October, as usual. 1. On Therapeutics, with Materia Medica, at No. 9, George Street, Hanover Square. By George Pearson, M. D., F. R. S., Senior Physician to St. George's Hospital. 2. On Chemistry, at the Royal Institution, Albermarle Street. By W. M. Brande, Professor of the R. I., Secretary of the I. S., &c. &c. 3. On the Practice of Physic, with the Laws of the Animal Economy, and Pathological Demonstrations. By George Pearson, M. D., F. R. S., &c. &c.

Mr. Blagden and Mr. Stone will begin their Winter Courses of Lectures on Midwifery and the Diseases of Women and Children, on Monday, 8th October. The Lectures are read every Morning, from a Quarter-past Ten to a Quarter-past Eleven, for the convenience of Students attending the Hospitals.

Mr. Henry Davies, Member of the Royal College of Surgeons, Surgeon to the Western Dispensary for the Diseases of Women and Children, Surgeon and Man-midwife to several Lying-in Charities, &c., will commence his Autumnal Course of Lectures on Midwifery, and on the Diseases of Women and Children, on Tuesday, 2d October, at a Quarter after Ten o'Clock in the Morning.

Dr. Conquest, F. L. S., and Physician-Accoucheur to the City of London Lying-in Hospital, City Road, and to the City of London Lying-in Institution, will commence a Course of Lectures on the Principles and Practice of Midwifery, on the Diseases of Women and Children, and on some Points of Medical Jurisprudence, on Monday, 1st October, at a Quarter-past Five o'Clock in the Evening.

Medical School, St. Bartholomew's Hospital.—The following Courses of Lectures will be commenced on Monday, 1st October:—On the Theory and Practice of Medicine, and on Chemistry and Materia Medica, by Dr. Hue; and Anatomy and Physiology, and on the Theory and Practice of Surgery, by Mr. Abernethy; on Midwifery, by Dr. Gooch; Practical Anatomy, with Demonstrations, by Mr. Stanley.

Medical School, London Hospital.—The following Courses of Lectures will be commenced on Monday, 1st October:—On the Theory and Practice of Medicine, by Dr. Robinson; Anatomy, Physiology, and Surgery, by Mr. Headington; on Midwifery, and Diseases of Women and Children, by Dr. Ramsbotham; on Materia Medica, by Dr. Billing; on Chemistry, by Mr. Richard Phillips; Practical Anatomy, with Demonstrations, by Mr. W. B. Harkness.

Mr. Robert Bingham will commence his Autumn Course of Surgical Lectures on Friday, October 5, at Seven o'Clock in the Evening.

Midwifery.—Dr. Power and Mr. Hopkins will commence their next Course of Lectures on Midwifery, and the Diseases of Women and Children, on Thursday, October 4th, 1821, at the Lying-in Institution, 3, Queen's Square, Westminster, at half after Ten o'Clock in the Morning; and also on the same day, at No. 8, White Horse Court, High Street, Borough, in the vicinity of St. Thomas's Hospital, at the hour of Four in the Afternoon.

The Lectures will be given daily at the above hours, and comprise the Principles and Practice of Obstetric Science, with the peculiar views of

Dr. Power in regard to the nature of the Parturient Action; the means of preventing and relieving painful and protracted Labour; Menstruation, Abortions, &c. &c.

TERMS:—Each Course entered for singly, with Cases, 3 Guineas.
Two Courses entered for at once, with ditto, 5 Guineas.
Single Courses without Cases ..... 2 Guineas.
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Theatre of Anatomy and Medicine, Hatton Garden.—The Lectures at this Theatre will be commenced early in October, as follows:—On Anatomy, Physiology, Pathology, and the operations of Surgery, by Mr. Cusack daily. On the Theory and Practice of Medicine, by Dr. Uwins. On Midwifery, and the Diseases of Women and Children, by Mr. Bartlett. For further particulars apply to Dr. Uwins, 13, Bedford Row; Mr. Cusack, 41, Berners' Street, Oxford Street; Mr. Bartlett, 29, St. John's Street; or Mr. Taunton, 87, Hatton Garden.

Dr. Uwins will likewise give a Course of Lectures, on the alternate Days, at the City Dispensary, Grocers' Hall Court, Poultry, at Half-past Eleven in the Forenoon, at which hour his Lectures in Hatton Garden will be delivered.

Theatre of Anatomy, near St. Thomas's Hospital, Borough.—Mr. Grainger will commence his Autumnal Course of Lectures on Anatomy and Physiology, at his new Anatomical Theatre, Webb Street, Maze Pond, Borough, on Tuesday, the 2d of Oct. 1821, at Eleven o'clock in the morning. —Apply to Mr. Grainger, 13, St. Saviour's Churchyard, Borough; and to Dr. Armstrong, 39, Southampton Row, Russell Square.

Dr. Armstrong will commence, at the same Theatre, a Course of Lectures on the Principles and Practice of Physic, on Wednesday, 3d October, 1821, at Half-past Nine in the Morning.

Great Windmill Street.—The Lectures on Anatomy, Physiology, Pathology, and Surgery, by Mr. Wilson and Mr. Charles Bell, will commence on October the 1st. The Evening Lectures on Surgery, by Mr. Bell, on the following day; and the Demonstrations in the Rooms, by Mr. Shaw, on the 10th.

LITERARY NOTICES.

Preparing for publication, An Appendix to Orfila's System of Toxicology, with Twenty-two coloured Engravings of Poisonous Plants and Animals: intended to render M. Orfila's work on Poisons complete: it having been taken from a new work of that author, entitled, "Lectures on Medical Jurisprudence;" which is merely a recapitulation of the System of Toxicology, with a few new Articles and some recent Experiments, which the Translator has carefully collected into a small work. This will be printed to correspond with the larger treatise, and illustrated by Engravings, coloured according to Nature. Their utility will, by that means, be greatly increased.

A new edition of Mr. Cuthbert Johnson's Essay on the Uses of Salt in Agriculture and Horticulture, is in the press, and will appear in the course of a few days. It will be improved by the results of Experiments of Messrs. Curwen, Cartwright, and numerous other practical Farmers, and by favour of the Board of Agriculture, will also be enriched with those of Mr. Sinclair, of Urban Abbey. The work has been nearly re-written.

Mr. Stevenson, Oculist and Dentist to his Royal Highness the Duke of York, &c. will shortly publish, in one volume, 8vo., A Practical Treatise on the Nature, Symptoms, and Treatment of Gutta Serena; a Species of Blindness arising from a Loss of Sensibility in the Nerve of Vision. Illustrated by numerous Cases.

Just published, a Familiar Treatise on Disorders of the Stomach and Bowels, Bilious and Nervous Affections, with an Attempt to correct the most prevalent Errors in Diet, Exercise, &c.; being an Exposition of the

most approved Means for the Improvement and Preservation of Health; also a Refutation of the Arguments urged by Sir Richard Phillips against the Use of Animal Food; containing likewise the Author's Opinion of the most probable Consequences of many prevailing Habits in Society, with Practical Hints for their Prevention. By George Shipman, Member of the Royal College of Surgeons in London.

In a few days will be published, the Third Edition, entirely re-written, of Dr. J. Johnson's Work on Tropical Climates. 8vo.

Shortly will be published, Dr. Forbes's Translation of Laennec on Diseases of the Chest, with Notes and Plates. In One Volume. 8vo.

The Quarterly Journal of Foreign Medicine and Surgery, and of the Sciences connected with them, No. XII., will be published on the 1st of October.

The Second Edition of Dr. Conquest's Outlines of Midwifery will be published early in September.

An Appendix to a Catalogue of Books in Anatomy, Medicine, Surgery, Midwifery, Chemistry, Botany, &c. &c. &c., on Sale at Anderson's Medical Library, 40, West Smithfield, will be published in the course of a few days.

Preparing for publication, a Practical Treatise on Diseases of the Liver, and on some of the Affections usually denominated Bilious; comprising an impartial Estimate of the Merits of the Nitro-Muriatic Acid Bath. By George Darling, M.D., Member of the Royal College of Physicians of London.

Shortly will be published, the Medical Practitioner's Pocket Companion; or a Key to the Knowledge of Diseases, and of the Appearances that denote Recovery or Danger; being an alphabetical Arrangement of Symptoms, with their various Indications. By Mr. T. O. Churchill, Surgeon.

Preparing for the Press, an Appendix to Orfila's System of Toxicology; being a Selection of all the Original Matter contained in a Work recently published by the same Author, entitled "Lectures on Medical Jurisprudence." To which will be added, a Series of Engravings of Poisonous Plants, Insects, &c. as given in the original Work, beautifully coloured according to Nature.

Speedily will be published, a Table of the Chemical Changes and Decompositions of the various Articles contained in the London Pharmacopœia; intended to assist Gentlemen who are preparing for Examination at Apothecaries' Hall.

NOTICES TO CORRESPONDENTS.

Communications have been received this month from Dr. Onslow, Mr. Perry, and Mr. Dennis.

In our next Number will be commenced a Series of Papers from the able pen of Dr. Gregory, entitled, "Cases in Medicine, with Pathological and Practical Reflections." No. 1, Palsy.

A Communication, too, will appear in the next Number, from an anonymous Correspondent, but who is known to the Editors, containing five interesting Cases of the Efficacy of Colchicum Seeds.

We shall be always glad to hear from Westoniensis.

The Pamphlet to which our attention is called, will be noticed in the next Number. The copies came rather too late for the present.

*** *Communications are requested to be addressed (post paid) to* Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL REPOSITORY.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Cases in Medicine; with Pathological and Practical Reflections. By George Gregory, M.D., Senior Physician of the St. George's and St. James's General Dispensary.

No. I.—PALSY.

Mr. I. H., thirty-four years of age, a gentleman engaged in business in London, of stout make and plethoric habit of body, went down to Cambridge Nov. 15, 1820, being then in perfect health; and returned to town Saturday, Nov. 18.

On the following Tuesday (Nov. 21,) he experienced, for the first time, cramps of the legs; and he found he had not the perfect command of his right foot. The next day the left arm felt benumbed, and soon after the right shoulder became affected in like manner. Mr. Corbett, of Titchborne Street, a very intelligent Practitioner, being consulted, found him slightly feverish; and directed a dose of calomel on the evening of the 22d, and a common purging draught the succeeding morning. The symptoms continuing to increase during the week, my advice was desired on Monday, Nov. 27, when the following was the state of the symptoms.

The patient made no complaint of pain or uneasiness in any part of the body. The only occasion on which he had experienced *pain*, was during the first day, when he suffered from cramps. The pulse was 72, quite soft, and natural; the tongue perfectly clean; the bowels regular; the

appetite good; and he had slept well the preceding night. He informed me, that he found a general inability of motion in all parts of the body, but more particularly in the lower extremities. He walked into the room with some difficulty; and continued standing while I was making the necessary inquiries, feeling that if he had sat down, he could not have got up again. There was no swelling, tenderness, redness, or stiffness, of any joint. No other symptom or appearance, indeed, of any kind, was to be traced, beyond the mere loss of muscular power.

Upon questioning him as to the manner in which he supposed the complaint to have originated, he expressed his suspicions that it was owing to his having slept in a damp bed, while on his journey to Cambridge. On the 1st of December, I found the complaint had made rapid advances. He was now confined to bed, being almost entirely deprived of the use of his limbs.— Dec. 6th. The disease having now assumed a very singular but well-marked character, I requested the opinion of another Physician, and Dr. Latham was good enough to assist me with his advice. Both arms and legs were now become totally paralytic, and the loss of power had extended to the muscles that move the pelvis. The muscles of the neck and face, however, were perfectly under the control of the will, and they continued so uninterruptedly through the whole course of the disease. The patient, too, still retained some degree of power over the muscles of the back, so that he could give a slight motion to the trunk of the body laterally while lying in bed, but this power he subsequently lost. No other function was at all impaired. The heat of skin was natural, the pulse unaffected, the tongue clean, the appetite keen, the expression of countenance quite healthy, the mind active, the spirits good, the action of the bowels hardly requiring medicine; with neither headach, giddiness, noise in the ears, intolerance of light, nor any other symptom which could indicate an affection of the head. Dr. Latham saw the patient again Dec. 24, and remarked a continuance of the same symptoms.

In this state, indeed, Mr. H. remained, during the months of December, January, and February, with scarcely any material alteration. Symptoms occasionally arose of a different character, such as feverishness, costiveness, nausea, headach, dyspnœa; but they could almost always be traced to some error in diet, or to the medicines which were exhibited in the hope of subduing the disease. They were transient, and commonly yielded at once to a gentle aperient. On one occasion, some difficulty was experienced in making water, and an alarm was taken that the paralytic affection

was extending to the internal organs; but it proved unfounded.

On the 7th of February, 1821, Mr. Brodie saw the patient with me in consultation, when the same symptoms were observed as had been noticed in the early part of December. It was not until the second week of March, 1821, that any important changes took place. The first symptom of amendment was the recovery of a slight degree of power over one of the toes of the right foot. By degrees this extended to the other toes, both of the right and left foot. Then the ankle joint could be moved; and, about the same time, some degree of motion could be given to the first phalanges of the fingers. By very slow, and almost imperceptible degrees, the motions of the whole body were recovered, the muscles of the thigh being the last which regained their full power. Early in May, Mr. H. could walk across the room by help of crutches. On the 29th of May he first made an attempt to write, but the writing was not then legible. On the 4th of June he left his home for the first time. A few days afterwards, however, he fell, from weakness of the knees, and hurt himself so much, as to show the propriety of his confining himself to the house for a further period.

July 11th.—Mr. H. came down to his shop this day, feeling himself perfectly well, and firm upon his limbs. The only muscle of which he has not recovered the perfect command, is the adductor of the left thumb. Mr. H. has remarked, that during the whole period of convalescence, the left side of the body was considerably behind the right. Now they are, with this exception, entirely on a par. He states, that during the two weeks preceding this date, he has advanced very rapidly. He attributes this partly to the influence of the warm weather which has lately prevailed, and partly to a salt water bath, which he has employed every other night during this interval.

Aug. 1st.—Mr. H. continues to recover his strength.

Such is an outline of this remarkable case. In the detail of it, I have omitted all notice of the various means of relief which were suggested and pursued, because, upon an impartial revision of the case, I am satisfied, that the disease ran its course, *totally uninfluenced* by them; and that the interest of the case rests entirely in tracing the natural progress of the symptoms. I shall presently, however, take an opportunity of stating what the principal measures were which it was thought proper to adopt, and the single exception which may be urged to the conclusion now come to, regarding their complete inefficacy.

No doubt can be entertained regarding the nature of the affection under which this gentleman laboured during so many months. On its first approach, indeed, it was conjectured that it might be *rheumatic;* but the subsequent progress of the complaint proved it to be an instance, though an uncommon one, of *palsy.* There is reason to believe, that the conjecture of the patient himself regarding the cause of his disease may have been well-founded. Paralysis *à frigore* is frequently mentioned by the old authors; and the instances which they adduce in support of the notion are satisfactory, and may throw light on the origin of the disease in the present instance. Dr. Cooke informs us, in his "History and Method of Cure of the various Species of Palsy," that Hippocrates, Galen, Cœlius Aurelianus, Celsus, and others of the ancients, considered cold, especially when conjoined with moisture, as powerfully predisposing to palsy. Several modern writers, he adds, confirm these observations. Galen mentions the case of a boy, who, whilst fishing in a river, was so affected by cold about the seat and bladder, that he became unable to retain the fæces and urine. Avenzoar relates of himself, that travelling upon one occasion in rainy and very boisterous weather, he was attacked by palsy in the left foot, which had not been sufficiently protected from the wind and rain. Forestus speaks of palsy in the hands from cold and moisture applied to the neck. Hoffman describes the case of a young man, who lost the power of speech, and the use of the right side, by sitting at an open window, in a very hot room, with his neck exposed to a current of cold air. The latest author who has written expressly on this subject is Dr. Powell, in the fifth volume of the College Transactions (1815). His paper, entitled, "Observations upon some Cases of Paralytic Affection," was written, as he tells us, with the view of calling the attention of the College to a few cases, out of a more considerable number, which have fallen under his notice, where a paralytic condition of the nerves of particular parts has been induced by the operation of cold. He alleges, that the modification of disease to which he thus alludes is well known, and often submitted to practical observation; but imagines it to have been overlooked, in some measure, by writers on medicine.

Dr. Powell first relates the histories of three cases, in which a paralytic affection of *a few* muscles was induced by the partial application of cold; and then goes on to state his belief, that a similar effect of cold is sometimes *more general and more destructive.* In illustration of this position, he details the following case, which, as being the only one I

have hitherto met with, corresponding, in any degree, with that which forms the subject of the present article, I have taken the liberty to transcribe.

"A watchman, on quitting his duty after a night of severe cold, was attacked by sudden and violent general pains in his limbs, which soon departed, and left him in a state of universal palsy of the muscles of voluntary motion. He had lost all command over the muscles of his limbs and trunk: but the joints were unaltered in their external appearance; they were perfectly flexible, and it gave him no pain if you moved them in any direction. His circulation was not affected in any noticeable degree, and his mind retained its usual powers. His voice was not lost."

(So far the symptoms correspond with those of Mr. I. H., as already detailed.)

"The sphincters of the rectum and bladder had lost their usual powers of retention, and he passed both stools and urine involuntarily and unconsciously. I attempted the relief of this unfortunate man," says Dr. Powell, "by the hot bath, and a variety of remedies, but without success. He died; and after death, a very careful examination of the brain was made. No congestion—no effusion—no alteration of structure of any kind was discoverable in it."

This case, with the preceding, may be received as sufficient evidence of the important pathological principle,—that cold is to be viewed not only as the exciting cause of those states of disease in which the heart and circulating system are mainly involved,—fever, to wit, inflammation, and congestion,—but also as the cause of *simple functional disturbance of the nervous system.* An exact counterpart of those *paralytic* cases originating from cold, which have been now adduced, may be found in the numerous and well-attested instances which are on record of *tetanus* arising from cold, or, as they have sometimes been called, spontaneous tetanus. These, though for the most part seen only in warm climates, are occasionally witnessed even in this. A well-marked and fatal case of the kind occurred in the month of July last, at the Mary-le-bone Infirmary.

It is a remarkable circumstance, that in all the recorded cases of palsy from cold, the functions of the brain have remained undisturbed. In the case more immediately before us, the brain was never implicated, at any period of the disease. It was a never-failing source of surprise to myself and the other Practitioner in attendance, to observe palsy so complete in the extremities of the body, without the presence of a single symptom which could authorize our looking to the head, as to the common source and origin of the complaint.

As little ground was there for attributing it to some morbid condition of the spinal chord. Pain in the back, indeed, was *occasionally* complained of; but it was never severe, or permanent, or increased by pressure; and the long confinement of the patient to one posture may have well accounted for the inconvenience that was experienced, without the supposition of such a diseased state of the medulla spinalis as was appreciable by the Anatomist. Finding, however, that no progress was made in the cure of the complaint by the general means previously adopted, it was thought advisable, early in February, to act upon this supposition, and to apply blisters and setons along the course of the spine. Mr. Brodie was called in upon this occasion, and he concurred in the proposed plan. Five blisters were applied in succession, and kept open for a considerable time. These having been the last of the means which were resorted to, it may perhaps be contended, that they had a considerable influence in the ultimate recovery of the patient, and for some time I was disposed to think so myself. The very gradual manner, however, in which the muscles recovered their power, and the remarkable *order* in which this happened, (the parts most distant from the head and the smaller muscles being first restored,) rendered it probable, in my mind, that there was something in the nature of this affection which was not referable to the spinal chord—something which could be explained only by supposing, that the nerves themselves were the primary *seat* of the disease, and, therefore, that its pathology was *altogether distinct* from the common forms of hemiplegia and paraplegia.

Nothing is more deserving of observation in the history of this case, than the steady course which the disease ran. Its rise, progress, acmè, and gradual decline, afford evidence of the natural cure of a *chronic disorder*, as remarkable as any thing which has been observed in the phenomena of small-pox, of measles, or of typhus. The absolute powerlessness of medicine over this state of disease is equally worthy of observation; though it is less a matter of surprise, from the well-ascertained fact of the trifling influence exerted by medicine over several other and better known forms of *primary neurosis*, more particularly epilepsy, saturnine palsy, chorea, tetanus, and hydrophobia.

In the early stage of the disease, I directed the patient to lose twelve ounces of blood; and this was repeated on a subsequent occasion (Dec. 27), when the pulse became, from some unknown cause, full and strong, with other marks of feverish excitement. It would be unnecessary to enter into a long detail of the medicines which were employed.

Suffice it to say, that an ample trial was given to mercury, colchicum, the Dover's powder, and sweating regimen, the nux vomica, and the cinchona. Cupping from the back of the neck, stimulating embrocations, frictions, electricity, and occasionally active purging, were likewise had recourse to; but I could never satisfy myself, that the patient experienced benefit from the employment of medicine, further than was imputable to the occasional relief afforded to temporary derangements of the stomach and bowels.

II.

Obstetrical Researches. By Maurice Onslow, M.D.

No. 7.

I possess two MS. copies of the "Lectures on Midwifery" of the celebrated Dr. William Hunter, one dated 1768, the other 1775. In the first of these, he deprecates all interference with the placenta, the delivery of which may, he thinks, always be safely left to nature; and very energetically adds, that the introduction of the hand into the uterus, for the purpose of removing the placenta, is "d—mn—ble practice." In the later Lectures he says, he "would prefer bringing it away artificially, if it does not come away in an hour or two, because the uterus will be sometimes contracted in such a manner, that it will require more force than the patient is able to bear, or we to exert; and should she die, or be seized with a fever, it would be immediately attributed to the placenta's remaining behind."

The following case, which describes the consequences of leaving the placenta too long, after a labour of long duration, and perhaps not well managed by the midwife, I found among a number of MSS. in the hand-writing of Dr. Bromfield. Though rather tediously minute, it contains much instruction; and shows so well what the practice of midwifery was fifty years since, that I think my readers will not find their time ill-spent in perusing it. The remarks within crotchets [ ] are introduced by the Editor.

"Mrs. T——e, aged about thirty, was taken in labour with her first child, Tuesday morning, Oct. 20, 1772, at seven o'clock, when the membranes broke, and she sent for her midwife, Mrs. Nihel; and continued in some pain, though never violent, and with very little sleep, till the Thursday morning following, two o'clock [43 hours], when she was delivered of a dead child by her said midwife.

"Dr. H——r, being a friend of Mrs. T. and her family,

had been informed, about the middle of the day, that the placenta was adhering, and desired the midwife to wait, as he thought it would come down, and all be well; and added, that he would come to her in the evening, if there should be occasion. A message for this purpose was sent him in the evening; and a little after nine that night [19 hours after the child was born], he sent to desire me to go to her, as he was engaged. I went immediately; and found Mrs. T. with an exceeding hot skin; a full pulse, running 150 in a minute; very anxious, breathing with difficulty, and starting whenever touched or spoke to; and her mother and others about her told me, she had rambled during the afternoon, as if she were light-headed. I inquired if she flooded now, or had done so, and was informed she did not; but was shown some coagula in a basin, equal to five or six ounces of blood; and a sheet soiled, which had been taken from her, but not so much so as to occasion any great anxiety about the loss of blood she had sustained. Her belly was very tender to the touch withoutside of the bed-clothes; and the midwife told me she was sore below; but that, she said, was not to be wondered at, it being her first child.

"Considering every circumstance attending this poor woman, I could not help fearing mischief, and thinking she was in great danger; and that, as the proper time for fetching the placenta was elapsed, it must be left to come away of itself, especially in the inflamed and irritable state she was in, and without any flooding. But as the leaving it, when there was so much reason to apprehend danger, might bring on me some censure by those who were not acquainted with the nature of these things, I could not help wishing to have some gentleman of my own profession consulted, to vindicate my proceedings; and therefore, before I ordered any thing for her, I desired, as Dr. H. was engaged, that Dr. G——e should be sent for, who came immediately, and was as much alarmed as I had been to see our patient in so much apparent danger. The Doctor agreed with me, that any attempts to fetch away the placenta now would be very improper, and dangerous.

"The midwife told us, she had tried with her fingers, and found the uterus contracted, so that she could not reach the placenta; and that the funis umbilicalis was pulled off, she supposed by the nurse, when she took linen from her. [This seems to be a very unsatisfactory explanation of the funis being pulled off. Is it not more probable that it was done by the midwife, in fruitless attempts to extract the placenta?]

"Dr. G. and I both introduced a finger into the vagina, to see if we could find any portion of placenta coming down,

but we could not. We found something large presenting at the os uteri, but, from its feel and loose texture, we were sure it was only a coagulum. The os uteri appeared to us to be still largely dilated. [This is a very different statement from that of the midwife, who says that "the uterus was contracted." The os uteri being "largely dilated," would have warranted a cautious attempt to remove the placenta, and the probability is, that such an attempt would have succeeded.] The vagina was very tender, and she complained much of that, and the soreness of the abdomen when touched.

"The midwife had given a clyster, and procured one stool that afternoon. In order to quiet her, and take off irritation, [exceeding hot skin, tender belly, pulse full, 150 in a minute!!] we ordered a little draught for her, containing a scruple of confect. damocrat., and as much spermaceti, to be taken every six hours, with fifteen grains of rhubarb in the first draught *only*, that we might procure a stool or two the next day; and gave a particular charge that she might be kept quiet and cool, and take nothing but barley water, balm tea, gruel, panado, and now and then a little very small broth.

"Friday morning, second day, at nine.—I had the satisfaction of meeting Dr. H. Dr. G., by a mistake of his servant, did not meet us.

"We were informed she had had some rest in the night, but found her in a confused kind of sleep, with her eyes half shut, and her mouth open. Her skin was then moist, had much less heat on it than the night before, and she breathed better; but still there was some hurry and confusion in her manner, though less than the preceding night. Her pulse was full, and 110; and her tongue moist, but a little white.

"Upon pressing the abdomen, there then appeared but little tenderness; rather, indeed, more on the left side than any other part of it. We were shown a coagulum, which came down in the night, which, I suppose, was what we had felt at the os uteri, when Dr. G. and I left her the preceding night: it was not large, and could not contain more than about two ounces of blood. She has yet had no stool by means of the fifteen grains of rhubarb she had taken.

"Dr. H. desired she might continue her mithridate draught without the rhubarb, and go on with the directions given the night before. The Doctor said, he would call on her again in the afternoon, and every now and then; and that I might do so if I pleased. This, however, I declined doing, thinking it unnecessary; but that evening sent my servant

to inquire after her; and passing by her house the next day, I saw Dr. H.'s chariot there, and waited in my coach to inquire of him how she did. The Doctor told me, she complained of pain in her bowels; that he feared inflammation might come on there; [Might come on! Pulse 100, very full; could not bear to have the abdomen touched!] otherwise he hoped all would be well; and desired I would go up and see her, whilst he stayed below; which I did, and found her with a pulse just 100, and very full; and upon desiring to examine if the abdomen was tender, she cried out, and said, she could hardly bear to touch it with her own fingers. I just touched the scrobiculus cordis, in the tenderest manner, with the tops of my fingers, and she complained much. The placenta was not come away; but Dr. H. told me, a part of it was come down into the vagina; and that he, with two of his fingers, had been endeavouring to loosen it, and intended calling again in the evening for the same purpose.

" Sunday, the fourth day, about three in the afternoon, I stopped at Mrs. T.'s door, to know if the placenta was come down; and was by her husband informed, that it came away the preceding evening [between sixty and seventy hours after the birth of the child]; that she was now in a shivering fit, and had one more violent the former day, before the placenta came away. Dr. H., I understood, had seen her that morning, and intended coming again in the evening. About eight this evening, Dr. H. called at my house, to tell me he thought Mrs. T. in danger, and desired I would meet him the next morning at ten.

" Monday, fifth day, ten o'clock in the morning, when I met Dr. H., I found he had continued the mithridate draught without rhubarb till this time. The Doctor told me, she had two or three stools Friday evening, and as many Saturday. Saturday evening and Sunday morning the midwife gave her clysters made with chickens' guts and a spoonful of oil. She had several stools last night, and was feverish and restless all night. Her skin is now hot; and she has a rapid pulse, a little tenderness in the whole abdomen, but most on the left side, over the ligamentum latum. The tongue is brown, and a little dry in the middle of it. We ordered a pint of common emulsion, with an ounce of manna in it, to take four spoonsful of every three hours, and now and then to have a small linseed clyster; and desired she might drink thin panado, gruel, and hartshorn-shavings liquor; and let alone broth, which we were now told was her only drink during the night past, and that she had then taken at least two quarts of it. I was told the lochia had hitherto been good, and in sufficient quantity.

"Monday evening, half-past eight.—Drs. H., G., and I met; found her with a pulse 130; a great deal of heat in her skin, although a little moist. We were told, she had during the day many very small stools; her countenance was rather better, but she complained of a tightness about the scrobiculus cordis. No panado had been made, and she continues taking broth and the hartshorn liquor; but a promise was now made the former should be let alone. She is ordered to go on taking the remainder of her emulsion during the night.

"Tuesday morning, the sixth day, at ten.—She had a shivering fit of three quarters of an hour duration in the night, and then burned, and spent a restless night. Her diarrhœa, or rather tenesmus, was frequent and troublesome. She is now sweating moderately; her skin is temperate; and pulse soft, at 112. The countenance good: breathes pretty well; but complains of the tightness at her stomach, and says, she frequently coughs up a little clear phlegm after greater difficulty of breathing than ordinary.

"Now we were told, she had taken freely of panado, and liked it.

"We did not care to promote the purging, nor to restrain it; and ordered her to continue her soft diet, and take a draught of common emulsion, with ℈j. of pulv. è chel. cancr. comp., and to repeat it in five hours. Her tongue is a little foul, but moist; the lochia is sparing; and there has never been any appearance of milk in her breasts.

"Tuesday evening, six o'clock.—She has had some sleep, and but one stool since we left her in the morning. Her pulse is exactly 120, and fuller than it was then. She is very anxious, complains of the load at the præcordia, and has certainly more tenderness of the abdomen. She sweats a little, but her skin is hot.

"Ordered to continue the draught, with pulv. è chelis, to have a half-pint clyster of linseed tea to-night at nine, and to go on with her thin drinks.

"Wednesday, seventh day, ten in the morning.—Dr. H. being engaged, he could not meet me. Mrs. T. had another shivering fit last night; has been in great pain in her bowels; very restless; and had a continual irritation to go to stool. Her stools are very small, thin, curdly, and fetid; her belly is every where very tender, and more tense than it has yet been; she is sitting up in bed, and very anxious; breathing quick; and has a pulse 140, and irregular. She had taken but one of her draughts; and, seeing nothing would be of any service to her, I only ordered that to be given to amuse

her, and informed Dr. H. of her getting worse and worse very fast.

" Wednesday, about noon, Dr. H. saw her; ordered a flannel dipped in brandy to be applied to the belly, and that four ounces of anodyne balsam should be got to rub it with.

" Wednesday evening, between five and six, I saw her, when she had a very full rapid pulse, and had vomited several times since the morning: the abdomen was considerably distended; she breathed with difficulty; and there was every symptom of approaching death.

" Thursday I saw her twice; and Friday morning, the ninth day, she died."

Thus terminated a case attended by a midwife, who was considered a very skilful woman, and three obstetric Physicians of the greatest eminence. Were a case of this nature to occur at the present day, how very differently would it be conducted!

1. If a Physician practising midwifery were to receive information, that after a labour of 43 hours' duration the placenta was not expelled, he would proceed, without delay, to see the patient, and remove the placenta;—not wait till evening, in hopes that it would be expelled by the natural powers.

2. If not sent for till 19 hours had elapsed, and the patient in the state described, with a *full* pulse at 150, hot skin, breathing with difficulty, starting, light-headed,—in fact, in a very high fever,—he would bleed, and cool her; would throw up clysters, and give saline aperients; and finding the os uteri " largely dilated," and a large coagulum presenting, he would endeavour cautiously to extract the placenta.

3. But failing to effect this, instead of contenting himself with giving confect. damocratis, and one dose of fifteen grains of rhubarb, he would use saline anti-febriles, aperients, clysters, injections into the vagina, &c., &c.; and thus would expedite and facilitate the expulsion of the placenta, and, as much as possible, diminish inflammation, and cleanse the vagina and uterus; and thus, in a great measure, prevent the absorption of putrid matter.

By these means he would probably have prevented the very alarming state of illness into which the patient had sunk by the time the placenta was expelled. Even at this time, it is possible that the mischief occasioned by hesitation and delay was not irremediable. Active means of cure might even yet have resisted the progress of the disease; but what could be expected from confect. damocrat., except an aggravation of the symptoms?—or from clysters of chickens' guts

and emulsions with manna, except to make a show of doing something for the benefit of the patient? But the doctrine of the day permitted nothing more—even in 1776, when Dr. Layard published his "Pharmacopœia in usum Gravidarum," &c. He says, in the preface, "Exclamabit fortassè hodiernus artis obstetricæ cultor, nulla medicamenta antimonialia se invenire. Sciat quod repetitis observationibus compertum est, ea semper citius aut ocyus puerperis nocere. Sales neutri omnino sunt à puerperis avertendi; gravidis febricitantibus perraro sunt noxii."

III.

A remarkable Case of Tetanus, which terminated fatally; with an Account of Post Mortem Appearances. By W. Wansbrough, Surgeon, Fulham.

Mr. Semer, aged twenty-one, a native of Geneva, in Switzerland, left his residence on Tuesday, the 28th of August, on a visit to London, with a friend about to depart for Switzerland. Mr. S. parted with his friend on the following day; and remained in town until the morning of Sunday, when, finding himself unwell, he applied to a medical man, who gave him a draught of senna, and another of magnesia, jalap, and peppermint. He took the second directly, as ordered; and, in the course of the day, he found himself grow worse. For some days previously to his leaving home he complained of severe pain in the head, lassitude, and uneasiness at the præcordia. A dose of salts relieved him; and he continued free from any uneasiness, save a slight headach. This returned on the morning of Sunday, and gradually increased during the day. He returned home at nine o'clock; but he was unable to proceed any further than this place. Immediately on alighting from the coach, he ran towards the inn in a hurried manner,—threw himself on a chair in the parlour,—and exclaimed, in an agonized tone of voice, "O! my head! my head!"—and rested his head on his hand. Some tea was offered him: he attempted to swallow it, but the effort at deglutition threatened suffocation, and he spat it out. He was requested to have advice, but refused. A few minutes after, on learning that he could be accommodated with a bed, he rushed impetuously up stairs, and, throwing off his coat, cast himself on the bed. He had no sooner done this, than he writhed about, turned on his face, and, suspending his head over the side of the bed, made violent efforts to vomit. At this crisis it was that he consented to have medical assistance. I was accordingly

summoned, at ten o'clock: and the detail of the subsequent symptoms I shall endeavour to proceed in, as regularly as the rapid termination of the case permitted me to note them. I attempted to raise him from the uneasy posture in which I found him, but he was rigid; and on lifting him, his head reflected back, the action of the muscles of the neck and spine resisted my efforts; and he exclaimed, "La tête! la tête!" in such a peculiar voice, that I judged he was suffering from pressure of his neckcloth. I at length turned him over to ascertain the fact, when the appalling conviction of tetanus and opisthotonos burst upon me. His jaws were closely and firmly locked, his head bent forcibly backwards, and the muscles of the neck hard and rigid. Immediately on being placed on his back he was nearly suffocated by an accumulation of phlegm in the larynx and trachea, which he, however, threw up, with considerable exertion and great difficulty, mixed with blood. From the close approximation of his teeth, I could not observe his tongue. His countenance exhibited great distress, and his body was influenced by strong muscular action. Upon seeing me he exclaimed, "O monsieur, je mourrai, je mourrai!"—and endeavoured to separate his jaws with his hands, in order to show me his tongue. Great drops of sweat hung on his brow, and his face was bathed in perspiration. The extremities were free from spasm; and his pulse beat at 134, strong and full. He earnestly solicited me to give him some drink: I poured half a teaspoonful of lemonade between his teeth into his mouth; but the instant it reached the pharynx, and the muscles of deglutition were brought into action, he suddenly threw himself prostrate on his chest, and exerted the most violent efforts to throw it out. The peculiar sound of the breathing, and the fluid issuing forcibly through the teeth, accompanied by the convulsive efforts at inspiration, bore a strong analogy to hydrophobia, and was truly distressing to witness. Finding it impossible to get any liquid into the stomach, from the high irritability of the larynx and pharynx, I took fourteen ounces of blood from the arm. The pulse remained unaltered. Half an hour after, I perceived a trifling relaxation in the temporal and masseter muscles, allowing a separation of the jaws to about a quarter of an inch. It was at this period that I learnt from him what I have stated in the commencement of this account.

The muscles of the neck remaining powerfully contracted, I applied a blister between the shoulders, which, however, was very soon removed by his continued efforts, throwing himself about. It was replaced; but ultimately lost, in a paroxysm that succeeded an attempt to swallow, which he

insisted on making. Willing to add the chance of getting medicine into the stomach, should he succeed, I diluted forty drops of laudanum in gruel, and gave him about a quarter of a tea-spoonful, intending to repeat the dose until the whole was taken.

Never, whilst I live, shall I forget the scene that ensued on this attempt! He received the liquid with gladness; and, hoping to obtain more, he intimated that he had swallowed it. I repeated the same quantity; and I then perceived that he had deceived me, and had not swallowed the first. He attempted then to swallow the whole. In an instant he was on his face, spirting it out most violently. His respiration was impeded. By a violent effort, he threw himself up. (At this crisis a man arrived, who was to remain all night.) We saved him from falling on the floor, and he rested on his knees. The trachea was closed; every muscle of his face horribly distorted. He accidentally caught my hand; the grasp of death enclosed it. His countenance became livid; his eyes fixed; every muscle of his body violently distorted; perspiration pouring down his face; and, with one or two unsuccessful and feeble efforts to inspire, the pulse ceased; his head fell forward; and his sufferings appeared at an end. Tracheotomy was my only resource; and, without any instrument of any kind at hand applicable to the purpose, I had my hand on my penknife ready, when the pulse vibrated beneath my finger; he gradually recovered, and in ten minutes after he spoke, and, in the most piteous manner, exclaimed, " Je meurs! je meurs!" Then, instantly, the contraction of the muscles of the neck would force his head down off the pillows; and, dreading suffocation, he would exclaim impetuously, " La tête! la tête! levez la tête!"

The pulse now rose to its former standard and fulness: I bled him again, to the extent of fourteen ounces. The pulse became small and rapid, and he remained calm for half an hour. He complained of pain in the occiput, and repeatedly desired to be raised. His earnest and beseeching solicitations " à boire" became now exceedingly distressing; and I at length composed him into quietude on that head, by representing the dreadful conflict he had so recently endured in consequence of deceiving me: he smiled, and acquiesced. The secretion from the trachea and fauces was at this time excessive, from thirst; and he incessantly expectorated viscid phlegm and mucus. I bled him a third time at three o'clock; and threw up an enema, containing 100 drops of tinct. opii, and ʒij. Træ. fœtidæ. It was with great difficulty I could accomplish this operation, as by this time the susceptibility to the touch was conspicuously dis-

played in the slightest movement. The head was thrown backwards, the body bent, the knees also bent; and the effect on the anus produced violent convulsions. I, however, succeeded, and he retained the enema. By four o'clock, his shirt was torn from his back, in his efforts to extricate himself from our hold, during the paroxysms of the constriction of the larynx; his whole body was bathed in perspiration; the muscular contraction continuing with great force, and the occiput reflected backwards in a frightful manner: and as the pulse was very little influenced by the depletions he had suffered, I bled him again, for the fourth time. He became quiet afterwards; and the pulse continued small and rapid for about twenty minutes, when it again rose in strength and fulness. At this time he expressed a strong inclination to void *per anum*, and no entreaty or persuasion could prevail on him to remain in bed for the purpose. I refused to assist his intention of using the chaise percée. He suddenly jumped up, and, by a violent exertion, threw himself out of bed, and would have fallen on the floor. We assisted him to the chair, but it was impossible to retain him there. The violent action of the muscles had now converted his body into a complete curve; and the constriction of the larynx and trachea, urging him to dreadful efforts at inspiration, increased the difficulty of retaining him in any posture. The scene of the first paroxysm was again repeated, with the additional horror of being obliged to let him fall on the floor, unable to resist him any longer, our strength being completely exhausted by this and our preceding efforts. My assistant, however, stood behind to keep him up. In a few seconds the spasm of the trachea declined, and he *breathed!* His arms, and legs, and hands, were now contracted to right angles; and in this deplorable state we raised him on the bed, where he lay without sense or motion, breathing deeply, laboriously, and stertorously, until half past four o'clock, *when he spoke* to me again!! He was unable now to expectorate.

Concluding that all further efforts were useless, — as, indeed, not any could be exerted, save *per anum*, — I remained with him till five o'clock, during which time he continued quiet. I left him in charge of the attendant; and at twenty minutes after, a more tremendous paroxysm, if possible, than any I had witnessed, terminated his sufferings and his life.

As his friends were at a distance, I did not obtain permission to examine the body until twenty-four hours after death. The appearances on dissection were as follow:—

The muscles of the neck much swollen, and the cuticle

slightly livid; the vessels of the scalp uncommonly full, points of blood issuing from the orifices on being divided; the dura mater unusually thickened, and adheres firmly to the ossa parietalia and occiput, requiring some force to detach it from its adhesions to those bones. About two ounces of serum have escaped through a wound of the dura mater, caused by the saw in dividing the calvarium. The vessels of the dura mater collapsed; and on the surface of this membrane, along the course of the longitudinal sinus, marks of inflammation appear. The vessels of the pia mater gorged with blood; the glandulæ pacchioni firmly adhering to the membrane; they are inflamed, and coagulable lymph is effused among them. A considerable effusion of coagulable lymph appears over the whole surface of the brain, between the tunica arachnoida and pia mater; the vessels of the latter membrane are visible, as through a semi-opaque medium. Several spots of pus appear, about the size of a small pea, dispersed over the pia mater. The processes of the pia mater highly inflamed, as they appear dipping down into the sulci of the brain. The medullary substance, on being divided, yields innumerable spots of blood. The lateral ventricles are filled with a semi-transparent fluid. A speck of pus appears on the surface of the pineal gland, which, on examination, proves to be ulcerated; the substance of the gland itself is degenerated into a soft, pulpy mass; the usual arenaceous particles are wanting. The cerebellum perfectly sound; the longitudinal and lateral sinuses are loaded with blood in a fluid state. Two ounces of bloody serum, which had gravitated into the basis cranii during the examination, were absorbed by the sponge; making a total of three ounces of fluid found in the cranial cavity, *i. e. two ounces* between the meninges, and one in the ventricles.

Examination of the Larynx and Trachea.— The longitudinal fissure formed by the approximation of the arytenoid cartilages is completely closed. The mucous membrane of the larynx and trachea is of a dusky red colour, from inflammation. About a table-spoonful of mucus and coagulable lymph plugs up the opening of the trachea into the larynx; the alæ of the latter cartilage are pressed together closer than usual. A considerable stricture exists two inches below the cricoid cartilage, extending three inches down the trachea; the tube is thereby reduced in diameter to less than a quarter of an inch. The mucous membrane is inflamed during its whole extent; mucus and lymph are effused on its surface throughout.

I have omitted to state, that two drachms of unguent. hydr. fort. were rubbed into the thighs, with one of camphor. The

warm bath was suggested; but the disposition of the muscles of the neck and spine to contract was so great, that I did not adopt it, as the effort to get him off the bed was likely to be attended with suffocation during each paroxysm. Cold affusion on his neck, breast, and loins, produced an alleviation of the symptoms, but he instantly after relapsed. After the subsidence of each paroxysm, the action of the heart against the ribs was *distinctly audible*, beating most violently, as if it would burst its confines. The effect was *awfully astonishing:* I can compare the sound to nothing short of that produced by striking the end of the finger gently against *an octavo volume, bound.* I mention this simile as producing the exact effect, after trying a variety of objects; I mention it, also, as being likely to show the intent of my comparison, as a *book* produces the same sound as another of similar size, bound in the same manner. I refer to an *octavo*, *whole*-bound, because I perceive a great difference between one that is covered with *leather*, and one that is covered with *paper* only over the pasteboard.—The rapid increase of the fatal symptoms prevented any attempt to move him, lest he should be strangled. Indeed, from the moment I saw him, it appeared a lost case, as the least movement or change of posture brought on the constriction of the larynx, threatening instant strangulation, attended by dreadful convulsions of the whole frame, rendering his sufferings truly horrible. I have adopted it as an axiom in the treatment of tetanus, where opisthotonos is a concomitant, that no advantage is to be attained, from any means that may be tried for the recovery of the unhappy victim of this merciless disease, after the spasm of the muscles of the œsophagus and trachea has taken so strong a hold of those tubes, as to render the attempt at deglutition dangerous to respiration, more especially when symptoms of cerebral excitement exist also. I have seen tetanus, both in cold and hot climates, treated most scientifically, by *various methods;* and I *never* had the pleasure of seeing one recover, either from the idiopathic or traumatic disease: but I never saw such a dreadful case as the one I have here related. It bears so close an alliance to the celebrated case of hydrophobia published by Dr. Pinkard, with respect to suffering, that I felt the force of the comparison during my attendance on my unfortunate patient: the difference here being only an inability to swallow liquids, without any horror at the sight of them, as he continually besought me to give him "quelque chose à boire." He retained his intellect during the absence of spasm, and up to the period of my departure, at five o'clock in the morning.

It is, alas! a painful confession,—but it must, nevertheless, be confessed,—that there are circumstances under which the medical Practitioner experiences the disheartening conviction that crosses his path, "Thus far shalt thou go, and no farther." It is, however, a pleasurable consolation, when we can apply it, to know that we have fulfilled to the letter the celebrated maxim, "Nil actum reputans, si quid superesset agendum."

IV.

Case of Wound of the Abdomen. By J. F. Hulbert, Member of the Royal College of Surgeons, London, &c., and Surgeon in Melksham.

In the *practice* of his profession, there are occasional occurrences which tend to depress the mind of the Surgeon at *one* period, and to elevate it at *another*. When, for example, he is called to a case that presents the most unfavourable aspect,—and reflects upon the tender ties by which society are connected together,—and the extremely delicate structure of the human frame, whereby life may at certain times be suspended, as it were, by a feeble thread,—if, under such circumstances, he is possessed, as every Surgeon ought to be, of a mind awake to sensibility, what must be his impression, on considering that he is looked up to, as a person whose office it is to render every assistance that human aid is capable of affording; and that should he not be so fortunate as to bestow the desired benefit, his conduct, (though in every respect honourable, and worthy of commendation,) may be made the subject of unjust censure, or unmerited reproach, from the ignorant cavillings of some *pretenders* to superior knowledge, or the envious sneers of some *illiberal individuals*, who aim at rivalling him in his professional career! On the other hand, when he beholds a fellow-creature stretched on the bed of agony, and the surrounding relatives or friends shuddering at the idea of the near approach of that event which to them appears inevitable,—and he finds that, by well-directed means, his patient is again restored to the bosom of his family and friends,—the consolation resulting from such a circumstance exceeds the gratifications of the votaries of pleasure, or the followers of ambition; at the same time that it inspires him with *pity*, rather than contempt, at those characters to whose conduct I have, as above, made an allusion.

Sentiments such as these were passing through my mind a few days ago, while returning from visiting a patient, when

the heat of the morning obliged me to ride at rather a slow pace. Turning a sharp angle in the road, I observed the near approach of a person riding at a swift rate, who immediately requested me to be expeditious, as a serious accident demanded my immediate attention.—This case, with its result, has led to the present communication; in hope that it may inspire the juvenile readers of the MEDICAL REPOSITORY with a determination *never to despair;* but to use every laudable endeavour for the recovery of their patients which their minds may suggest, under circumstances appalling on the *one* hand, and affording but little ground for hope on the *other*.

July 3d, 1821.—I was called (as above stated) to attend George James, aged nineteen, residing at Broughton, near this town, who had been wounded in the abdomen by a bull. This young man had been in the habit of occasionally irritating the animal; and was at work in the field where it was grazing, when, according to his usual custom, he began throwing stones, &c. The enraged animal, watching an opportunity of his being engaged at his labour, closed upon him, and tossed him into a hedge, near to which he had been employed. Fortunately for him, he fell on the opposite side; otherwise, a second attack might have occasioned his death upon the spot. He rose from the ground, with the intention of reaching the adjoining farm-house; but found that a considerable portion of his bowels were protruding through a wound occasioned by the horn of the bull; and, after calling for assistance, fell down, unable to proceed any further. In this state he was discovered by the mistress of the farm, who, alarmed at his appearance, was unable to render him any immediate assistance, but ran to call some people from their work in the adjoining fields. By their help he was conveyed into the house; and a messenger was immediately sent, in the greatest haste, for surgical assistance.

On my arrival, which, in consequence of the distance from my house (two miles), and my being at the time at a greater distance in an opposite direction, was nearly an hour and a half, I found him reclining on a bed upon the floor: his countenance pale; respiration quick; pulse small, and very rapid; and a clammy coldness on the surface of the body, particularly of the extremities. On causing the bed to be raised upon a table, for the purpose of examining the wound, &c. with the greater facility, I discovered that the hæmorrhage had been so copious as to have wetted the bed through, and to have spread to some little extent upon the floor; independent of which, he had lost a considerable portion of blood in the field before he could be removed.

Upon examining the wound, I found that it commenced about the centre of the right iliac region, extending obliquely upwards, towards the scrobiculus cordis, or rather towards the middle of the linea alba, between *that* part and the umbilicus. The intestines were protruding in a considerable mass, equalling in size the head of a child eight or ten years of age; the omentum, which appeared as if rent in several directions, was lying on one side, and presented a lively red appearance: the intestines, which consisted of nearly the whole of the colon, and at least two feet in extent of the ilium, were covered with an exudation of florid blood; but, upon tracing them minutely, I could discover no other injury they had received, excepting a laceration of several of the mesenteric vessels, from whence the hæmorrhage before spoken of had proceeded: their external coat, however, was rather of a dusky red colour. The ilium was apparently distended with flatus, as well as its usual contents; and the colon was evidently loaded with indurated fæces; so that I had some reason to apprehend the more unfavourable result, in consequence of the constipated state of the bowels at the time of receiving the accident.

My first aim was to reduce the intestines, which I did by commencing at the superior portion, and gradually drawing it forward with the fingers of one hand, at the same time that I gently insinuated it within the parietes of the abdomen, and retained it therein with the fingers of the other. In accomplishing this, the patient complained of a severe griping effect, notwithstanding I handled the parts with every requisite degree of tenderness; but immediately the whole were replaced, he declared himself easy, and excessively sleepy. In returning the omentum, which, as before observed, was severely lacerated, I found it necessary to expand it as much as possible, on account of its collapsed state; and, in order to replace it, passed my finger round in every direction, to spread it as evenly as possible over the surface of the bowels. The wound was then dressed in the usual manner, making use of sutures, and straps of adhesive plaster. A fold of linen was laid over the dressing; and a band six or eight inches in breadth surrounded the abdomen, over which I directed a large compress to be applied, frequently wrung out of cold water.

Finding that a degree of reaction was taking place, as the pulse was somewhat increasing in force, I had recourse to venesection; and in this, as well as in the subsequent bleedings, was governed more by the effect upon the vascular system, than influenced by the quantity of blood abstracted. Each time, I allowed the blood to flow until the *force* of

the circulation was considerably lessened, and a degree of pallidness overspread the countenance: in short, I considered the case as one of extreme danger; and that nothing but measures which, to the unprofessional person, might appear too bold, or almost unwarrantable, could afford a chance for the prolongation of life. The medicine which I directed was a solution of the sulphate of magnesia, to be given every three hours, combined with small doses of the antimonium tartarizatum.

The same evening, about seven hours after the accident, I again saw the patient. His appearance was favourable: the countenance seemed free from anxiety, though somewhat flushed; the pulse was above 100, and somewhat increased in fulness; the skin warm and dry; the bowels had not been evacuated; and he did not betray any great uneasiness upon gentle pressure being applied to the abdomen: he declared himself easy. I had again recourse to venesection, and directed a perseverance with the other means before recommended.

July 4th.—Visited my patient in the morning, and found that he had passed a tranquil night. The constitutional irritation, though somewhat increased, did not exist in any considerable degree. The tongue was covered with a white crust, and he complained of thirst; the skin was dry and hot, imparting a sensation of warmth to the hand; the pulse was 110, and increased in hardness; the bowels had not been relieved, although he had voided his urine several times; and the surface of the abdomen betrayed an increased degree of tenderness. I bled him again; and, not content with the quantity I was able to take from one vein, as it flowed but slowly, opened another in the same arm, by which means a sufficiency was obtained to produce the desired effect. I now directed him a grain of calomel, and the same quantity of antimonial powder, to be taken every four hours, and a dose of a saline cathartic mixture in the intermediate time; likewise the administration of the common domestic enema every four or six hours, with the repetition of the application of cold externally.—A call to a particular case of midwifery* prevented my seeing him in the evening.

July 5th.—This morning, on entering the apartment in which my patient lay, I was concerned at his appearance, and looked upon the case as an entirely hopeless one. His countenance was deeply flushed, and displayed a complete

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* This patient has been attended by me in *three preternatural labours*, within the space of two years and a half, there being in each case an *arm* presentation.

personification of anxiety, his sight being directed from one object to another in quick succession; and he shifted from side to side with frequency. I was informed, he had been delirious at intervals during the night. A troublesome hiccup distressed him; and he had vomited several times, as his stomach rejected almost every thing that was offered. The skin was dry, and parched with heat; and the tongue encrusted with a dark brown coating, resembling that which takes place in the advanced stages of typhoid inflammation. The pulse was irregular; beating for a few seconds with an almost incalculable celerity, though extremely weak, and for a few succeeding seconds with a seeming force, and with a distinct pause between each pulsation: the number was averaging about 150 per minute. On uncovering the abdomen, it appeared tense, and was distended to a considerable size: it felt hard, and was excessively tender, as he could not bear the slightest impression of the finger, without complaining of being hurt severely. He told me he was sure he should die, advancing, as a reason, the circumstance of a dream he had several weeks before, which had made a great impression on him; and he thanked me for the attention I had shown him, on this as well as on a former occasion*. I endeavoured to inspire him with hope of his recovery; informing him that there was no reliance to be placed in dreams, and that, provided we could obtain evacuations from the bowels, he might be again restored.

The means I now directed were the following:—The taking an occasional dose of the ol. ricini, which I subsequently found his stomach retained, although it rejected the most simple articles before administered: the enemata to be continued as before; but, instead of the common domestic preparation, to inject a solution of sulphate of soda in a strong infusion of senna: and to repeat the application of cold water to the abdomen, as frequent as could well be effected.

The same evening, I had the satisfaction of being informed that he had had several motions; and on my entering the room he exclaimed, "I am better, sir!" with a degree of animation. There was far less of that anxious expression of the countenance; the skin felt softer, was cooler, and

* In the month of June, 1813, when he was severely hurt by a fall from the top of a high tree, to which he had ascended for the purpose of taking some rooks' nests. On this occasion, though he escaped any fractures, he continued in a state of insensibility for several days; and I considered his recovery in a great measure attributable to the prompt and repeated use of venesection and purgatives.

seemed to be disposed to a gentle perspiration; the tongue was somewhat cleaner, the coating being whiter, and a moisture covering it, as if the salivary glands were beginning to resume their office; the pulse was become regular, but much too full and quick; and the abdominal parietes were more relaxed, having nearly lost their tension; and a gentle pressure could be borne without complaint. I directed the continuance of the cold applications, and the repetition of the oleum ricini, with the plentiful exhibition of whey and soft gruel, the only articles of diet he had taken since the occurrence of the accident. I had likewise recourse to another bleeding, abstracting the blood to a greater extent than at any time before.

July 6th.—A still further amendment had taken place, and gratified me on my visit this morning. The pulse was about 90; the temperature of the skin was cool, and it was bedewed with a gentle perspiration; the abdominal tension was nearly gone; and the wound, which I now examined for the first time, presented a favourable appearance. Several evacuations had taken place during the night. The treatment now recommended, and which, with slight alterations, has been since continued, was the taking a saline mixture, with mild antimonials; the keeping up a gentle action of the bowels, by an occasional dose of the oil; and the taking of nothing by way of food, but what was of the simplest and most easily digestible nature.

Since the last of the above dates, I have had the satisfaction of finding a progressive advance towards recovery; and at the time of writing this, do not entertain the smallest doubt respecting the same. The bowels perform their functions regularly; there is not the slightest degree of constitutional irritation present; and the wound is so nearly healed, that in a few days a firm adhesion and permanent cicatrix will be completely formed.

V.

Cases proving the Efficacy of the Colchicum Seed Wine in Gout; and also in Rheumatism affecting chiefly the Soles of the Feet. By a Correspondent (known to the Editor).

Case I.—A stout robust man, thirty-three years of age, by trade a tailor, in poor circumstances, and usually afflicted with gout in one or both feet twice or thrice in the year, each fit continuing upon him from three to five weeks, was lately seized in the night, subsequently to a previous

journey on foot of thirty-six miles, with an acute and almost intolerable pain in the left heel and leg, which in a few hours extended itself, with nearly equal severity, to the left side.

In the morning the left foot was much inflamed and swelled; and the sensation of this part of the body was so exquisite, that the weight of the bed-clothes, or the agitation of the room occasioned by any person walking across it, could scarcely be borne.

In the evening he became delirious; and such was the severity and continuance of the pain, that he remained in a state of delirium three successive days and nights, without a moment's sleep; sometimes calling out most vociferously, at other times tolerably quiet, but holding conversation, as it were, with himself.—In this lamentable situation, he was advised to take forty drops of the vinum sem. colchici at eleven o'clock in the morning, and a tea-spoonful at bedtime, in a wine-glass of cold water. In two hours, by the first dose of this medicine, the pains were evidently lessened; by the second dose he slept four hours; and in the morning was free from delirium, and greatly relieved from pain. By a continuance in this plan four days, living merely on a little tea, weak mutton broth, and a small quantity of toasted bread, he was wholly free from pain, and from any swelling or inflammation in the foot; and, after a perseverance in the medicine four days longer, the poor man was enabled to return to his business, and to walk a mile with as much ease and comfort, as he could have done previously to the attack from which he had so severely suffered.

Case II.—A medical man, fifty years of age, of a good constitution and temperate habits, in general practice in the country, and accustomed to much exercise, especially on horseback, has been subject annually, for several years, to one or more fits of the gout, which has deprived him of following his professional duties, sometimes for a month, seldom less than a fortnight.

In 1820, he experienced a most severe attack in his right foot, which he considered as the prelude to a long confinement to his house; but, anxious to visit, nine miles distant, a sick friend, who was equally desirous of seeing him, he had recourse to a tea-spoonful and a half of the vinum sem. colchici, in peppermint water. In two hours the gouty paroxysm was so wholly subdued, that he mounted his horse, visited his patient, and returned home, without feeling the slightest inconvenience, either from his complaint

or the journey; and since that period he has enjoyed excellent health.

Case III.—A Professional man, aged forty-five, who has lived rather freely, by which his constitution, originally good and sanguine, is somewhat impaired, has been for some years occasionally troubled with gout in his feet, and slightly in the stomach. Having a numerous sick poor in distant parishes to attend, as well as a respectable private practice, he is in the daily habit of riding many miles; and time, therefore, being a great object to him, he formerly applied, upon any attack of gout, to a tincture once celebrated for the cure of gout and rheumatism; but although he generally received, from two doses of that medicine, entire relief from positive pain, yet it was always succeeded, for several days, by a great weakness of the stomach, and general loss of strength, not to be attributed to past disease, but principally to the empirical remedy which he had taken. During the last year, when he experienced, in two instances, a sharp attack of gout, he tried the vinum sem. colchici, in doses of one and two tea-spoonsful twice a day, which released him in a few days, on both occasions, from his troublesome complaint, without being followed by any of that distressing weakness, which he felt invariably after the employment of the nostrum.

Case IV.—A man aged twenty-two, of a spare and rather weakly constitution, a journeyman in a shop where much standing and walking are required, was attacked, in November last, with distressing heat and tenderness, unaccompanied by inflammation, in the soles of his feet, by which he was soon deprived of the power to remain in his situation, or even to walk the shortest distance without great difficulty and pain.

This rheumatic affection, which not unfrequently renders the subjects of it tender-footed or crippled through life, was unattended by fever; and no other symptom of rheumatism existed, but a slight stiffness and weakness in the knees, which were neither inflamed nor swelled, nor scarcely painful upon pressure.

The patient's nights were restless; he loathed his food, and complained of great languor and prostration of strength. His tongue was white, but not coated; his bowels were natural. Finding that rest and warmth afforded no relief, he applied for medical assistance; and was directed to have recourse to a tea-spoonful of the vinum sem. colchici night

and morning; and, as he had an aversion from solid food, to live chiefly on tea, weak mutton broth, or beef tea, taking each in a small quantity.

In a few days his general health was improved; sleep in a moderate degree restored, which in three weeks became natural; his appetite and strength materially augmented; and the heat and tenderness in his feet greatly alleviated: in consequence of which he resumed his situation; and having gradually increased his nightly dose from one to two tea-spoonsful, which he took for the space of a month, omitting the morning dose of the medicine, he has been enabled to continue in the service of his employer without difficulty; and for several months past, up to the present period, he has been wholly free from his distressing complaint, and restored to his accustomed health.

Case V.—A lad fourteen years of age, of tender constitution, apprentice to a bookseller, and obliged to stand behind the counter several hours in the day, in a shop much exposed to every change of weather, was rendered incapable of following his usual employment, in December last, in consequence of a sensation of extreme heat and tenderness in the soles of his feet, for which the medical attendant of his master could find no relief, during the three weeks he was under his care.

The complaint was unattended by fever, and scarcely by any swelling or redness in the feet; but he could not walk a few paces, however carefully, without great agony. The bowels were natural, but the tongue was slightly furred; his nights were restless; appetite and strength diminished.

The widowed mother, distressed with the apprehension that her son would be obliged to relinquish his situation altogether, applied for assistance to the reporter of these cases, who ordered, with a restricted diet, free from flatulent food and drink, thirty drops of the vinum sem. colchici two hours after breakfast, and a tea-spoonful at bedtime, in a wine-glass of ginger tea, gradually increasing each dose one half for a fortnight, when he was so much relieved as to be enabled to return to his employment; and a continuance of the medicine for six weeks so entirely recovered him, that he has uninterruptedly pursued his usual occupations to this period, with comfort to himself, and satisfaction to his master.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Fauna, Flora, and Pomona, kept at Hartfield, near Tunbridge Wells. By Dr. T. FORSTER. *From the 1st to the 31st of August*, 1821.

Aug. 1st.—After a cold June and July, the present month set in with fair summer weather; the thermometer rising to 70°. In the evening, the clouds were richly reddened by the setting sun. I noticed to-day *Convolvulus sepium* in blow in the hedges, and *Lythrum Salicaria* by the sides of the rivulets.

2d.—*Senecio Saracenicus* in flower.

3d.—*Althea rosea*, the Holyhock, in flower.

4th.—This warm weather produces a very great advance of vegetation, and brings forward the POMONA. Some of the early Apples are already ripe. I noticed to-day the Heron, *Ardea major*, soaring over the marshes towards Withyham.

5th.—Warm day; thermometer 75°. The several *Epilobia* are every where in flower. The seeds of *Rumex sanguineus* ripe in my garden.

6th.—The several species of *Clematis* now are in beautiful bloom, and hang their flowers over all the windows of the house. The roses which ornament the lower part are not yet out of blow.

7th.—*Verbascum Lychnitis* in flower. *Campanula rotundifolia* now blows very numerously.

9th.—Fungi begin to appear, particularly those sorts of small Agaricks which grow in the grass of a pale brown colour. I have seen one *A. integer* already.

10th.—The Heron, *Ardea major*, seen flying over towards S. E. two days running.

11th.—*Nigella Damascena* out of flower, and bearing seed. This morning Mr. E. Forster, jun. observed a large flock of Gulls, *Larus canus*, flying over Summerford towards the S. E.

15th.—The *Tropæolum majus*, vulgarly called Nasturtium, is now in full flower, and becomes very ornamental in the gardens. *Sonchus palustris* is just coming into blow. *Antirrhinum Linaria* common in the hedges.

17th.—*Agaricus muscarius colore flavescenti-fusco* is springing up in my garden: likewise several small blown Agaricks, not yet made out as to the species.

18th.—Mr. B. M. Forster noticed this morning the light

of the sun so refracted through a cloud of peculiar structure, as to appear of a bright blue colour; the disk, in fact, looked of a deep azure*. The Prince's Feather in flower.

21st.—The Kingfisher, *Alcedo hispida*, appears about the ponds. Hot day; thermometer 80°.

22d.—*Helianthus annuus*, the Sunflower, just in blow. Warm clear weather. The Swifts, *Hirundines apodes*, are no longer seen.

27th.—*Malaxis paludosa* found near the High Rocks.

30th.—Sunflowers are now common in the gardens, and in full blow.

31st.—*Lilium tigrinum* in full flower in the gardens.

P.S. Since I began to keep this Calendar of Flora, I have found the *Hieracium sylvaticum* to be a common plant in this neighbourhood, though I mistook its flowers, for a long time, for those of *H. Forsteri*. Neither of these are mentioned in the Flora Tonbrigiensis, nor in my list of Addenda to that work.

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* This extraordinary blue appearance of the sun was noticed in various parts of England; in some few places it was described as looking purple. At Lewes, in this county, and at Yarmouth, in Norfolk, the same appearance of blue sunlight was noticed; hence the peculiar clouds, which by refraction produced the phenomenon, must be very extensively distributed over the island. This day was the anniversary of the great meteor, which happened August 18th, 1783.

PART II.

ANALYTICAL REVIEW.

I.

Essays on Hypochondriasis, and other Nervous Affections. By John Reid, M.D. The Second Edition, with considerable Additions.

Publications are not unfrequently ordered into a library in consequence of a lounging look upon a page or two of their contents in a bookseller's shop; and we could not, perhaps, mention any production more likely thus to prove captivating at first sight to a man of taste, than the one the title-page of which is above transcribed.

Dr. Reid's book has, by a contemporary critic, been pro-

nounced " the most exquisite production of modern Physicians." For our own *goût*, we must confess it to be rather too exquisite; its rounded period, antithetical point, and studied alliteration, being hardly calculated for the vehicle of medical precepts,—but, on the contrary, likely to lead to an occasional misconception of the author's meaning thus *caricaturely* expressed. For example, when the venesector is spoken of as " breaking into the bloody house of life,"—when the lancet is mentioned as a " minute instrument of mighty mischief,"—the reader of such apophthegms might infer the writer of them to be a determined and *devotee* decrier of blood-letting practice;—an inference which, we happen to *know*, would in the present case be an erroneous one.

As a matter of mere taste, indeed, and literary propriety, we object to the solicitous sententiousness which is too often characteristic of Dr. Reid's style. The machinery is seen at work, when the effect alone ought to strike the eye of the observer; the labour of composition protrudes itself upon view, when the sense, and not the sentences of the author, ought to be the object of regard: and it may be further objected, that the most trite and trivial materials are occasionally covered over with the gloss of fine composition, and by this process made to assume the spurious semblance of grave and important truths.

In spite of all these objections, however, which a sense of justice has compelled us to advance, the book before us must be allowed to be rich in gems, which are of sufficient value to redeem the whole of its dross. We doubt whether the great Johnson himself would have given more phraseological force of representation to those inconsistencies which mark the hypochondriac, in reference to a disgust of life, joined with a desire for its protraction, than the following delineation displays:—

" When all is gone by that could render the world reasonably dear to us, our attachment to it not only remains, but appears frequently to be strengthened, rather than impaired, by the departure of whatever could justify its continuance. The love of life, one might fancy, in some cases, to be a product formed from the decomposition of its pleasures."—" This peculiar species of dotage, this fondness, as it were, for the mere function of respiration, can be explained only by that invincible obstinacy of hope which yields to no experience. We persist in looking for the sweetest part of the draught at the bottom of the cup. That felicity which the 'first sprightly runnings of life' could not give, we fondly expect may be extracted from the feculence of age. Such an infatuation with regard to the future, may be considered as in some respects a

desirable ingredient in the composition of our frames. It is a delusion which mercifully supplies what would otherwise be a dreadful want in the realities of life. On the other hand, an almost unceasing and fearful looking forward to the end of our journey prevents our seeing many of the flowers by which the path is strewed; and induces a distaste for nearly every cordial which might otherwise have innocently refreshed us in the course of our weary pilgrimage. The habitual horror which thus overshadows the mind, darkens the little daylight of life. An indulgence in this morbid excess of apprehension not only embitters a man's existence, but may often tend to shorten its duration. He hastens the advance of death by the fear with which his frame is seized at its real or imaginary approach. His trembling hand involuntarily shakes the glass in which his hours are numbered.

"Contradictory as it may appear, there are well-attested instances of persons who have been driven even to suicide by the dread of dissolution. It would seem as if they had rushed into the arms of death, in order to shelter themselves from the terrors of his countenance."

Than the concluding sentences of the above paragraphs, we scarcely ever witnessed any thing more powerful; and it is in such writing that the book before us abounds.

But we conceive that Dr. Reid has erred in omitting reference to a principle by which the apparent inconsistency of *tedium vitæ* with desire for life seems of more easy explication, than upon the "*to be* blest" assumption: it is the "fearful looking-for of judgment," the apprehension of the horrible "dreams" of eternal sleep, that in a great measure accounts for the anxious wish to remain in life after life's pleasures are exhausted. Together with this, there are the sympathies and associations by which even the most isolated find themselves connected with their fellow-men, and the unloosing of which bonds cannot be contemplated, even by the least feeling, without a considerable measure of "anxious," painful sensation. Shakspeare and Gray have given a more philosophical, though scarcely more poetical account of the matter, than our present author. The circumstance, indeed, of suicidical attempts, to which Dr. Reid so finely alludes, as combined with a dread of dissolution, is mysterious in the extreme; but the self-destroyer either acts under the uncontrollable impulse of temporary madness, or resorts to a deed of dreadful daring, upon the calculation that the tale of a something after life, to the truth of which "all nature cries aloud," may, after all, be a tale of falsehood.

The above remarks of Dr. Reid, however, independently on the splendour of composition which envelopes them, convey a lesson which it would be well for many to lay to heart, and determine to act upon. We are all too prone to

give way to constitutional temper, under a cowardly and false assumption of its irresistibility. The " possunt quia posse videntur" feeling is not sufficiently encouraged; and we do not make frequent enough calls on our *minds* to calm the irritation of our *bodies*. There is no one but would allow the propriety of the expression, " *indulgence* in a morbid excess of apprehension;" but the admission that the word indulgence is a correct term, is an acknowledgment of the individual's power, aye, and of his responsibility also, to check the inroads of *structural* irritability: and let it be remembered, that the courage, the placidity, the composure, which are the results of self-command, while they are likely to prove as beneficially operative upon the happiness and even the *length* of our lives, have much more in them of actual virtue, than in the case of their being merely the indices of a certain mode in which the physical materials of our being are united into one mass of bone and flesh. In the previous chapter to that from which we have quoted, and which is entitled, " The Power of Volition," there are some pertinent remarks bearing upon the principle to which we now advert; but we must not allow ourselves to be drawn into analysis and comment; our object, in the present instance, being only to notice and recommend. Of second editions it is not usual for us even to do thus much, especially when the respective works have been previously reviewed, either by ourselves or predecessors; but Dr. Reid's is by no means a common-place production: and we have been further incited to the present mode of announcing a new edition, from the circumstance that it is considerably enlarged,—and that it is, moreover, enriched with some very sensible notes from Dr. Haindorf's German translation of the former one. We cannot well conceive any thing more gratifying to the feelings of an author, than that his work should meet with such a translator, and such a commentator.

" We should have fewer disorders of the mind," says Dr. H., in his remarks upon a part of Dr. R.'s work, to which we have above referred, " if we could acquire more power of volition, and endeavour by our own energy to disperse the clouds which occasionally arise within our horizon; if we *resolutely tore the first threads of the net* which gloom and ill-humour may cast around us, and made an effort to drive away the melancholy images of a morbid imagination by incessant occupation. How beneficial would it be to mankind if this truth were universally acknowledged and acted upon,—viz. that our state of health, mental as well as bodily, principally depends upon ourselves!"

II.

A Practical Treatise on the Inflammatory, Organic, and Sympathetic Diseases of the Heart; also on Malformation of the Heart, Aneurism of the Aorta, Pulsation in Epigastrio, &c. &c. By Henry Reeder, M.D., &c. &c.

There are several sources of difficulty connected with the diagnosis of cardiac disease. In the first place, the connected action of each portion of the heart is so intimate, that derangement of one cannot well have place without simultaneous and sometimes almost similar derangement of another. Does, for example, the right ventricle prove insufficient to propel its due quantity of received fluid? the auricle of the same side must necessarily so have its integrity of function interfered with, that, provided there *were* symptoms from which the Physician could always accurately infer an auricular or ventricular disorder, the one thus being productive of another, would prevent the test from always being of easy recognition.

Secondly; the pulmonary and cardiac organs are so mutually dependent, that disease existing in the lungs is not seldom manifested by a deranged action of the heart, and *vice versâ*,—both structural and functional affection of the latter organ assuming often the aspect of mere pulmonary ailment: and further it may be stated, and must be allowed, that to distinguish a disorder of action from a disorder of structure—a sympathetic and consecutive from an idiopathic and primary affection—is at times so difficult a matter, that the most observant and experienced are almost equally *at fault* with the superficial and inexperienced. In a word, we believe, that to pronounce from external signs the absolute internal condition of the organ in question, is often next to impossible, even though the observer were aided by the auscultation instruments of the celebrated Laennec; and we are, moreover, persuaded, that mere book and ideal distinction is in many cases resorted to, both by British and more especially continental pathologists, which actual science or *post mortem* investigation fails to ratify.

Are these remarks introduced for the purpose of discouraging industry, and favouring empirical practice? If such be the inference of the reader, we protest against its fairness. Let us lose no opportunity of adding new observation to already acquired experience; but, at the same time, let us not bring discredit on our profession, and occasion discouragement to our more modest brethren, by assuming demonstration, when we have actually advanced but little

beyond conjecture. There is no one who loves science, and wishes the welfare of his species, that would not rejoice in the certainty of symptomatology; but wishing and willing are very different things from possession and power; and pathology, let be said what may be said, has still too much about it of the *scientia conjecturalis.*

But to our employ. Dr. Reeder, in the work before us, treats first of carditis, acute, subacute, and chronic; in which he includes rheumatic affections, with inflammation of the veins and arteries: secondly, angina pectoris: thirdly, disordered structure of the valves, and alteration in the muscular substance of the heart: fourthly, of enlargements of the organ: fifthly, of its diminution: sixthly, pericardial adhesion: seventhly, of polypi: eighthly, of sympathetic affections: ninthly, of malconformations: tenthly, of hydrops pericardii: and, lastly, of aortal aneurism. In a concluding section, the author makes some remarks on the causes and rationale of pulsation *in epigastrio.*

Carditis.— We scarcely need go through the symptoms characterizing this form of cardiac disease. It is, in fact, pleuritic inflammation attacking the heart, or being extended from the lungs to that organ, and manifesting itself accordingly: but Dr. Reeder, following the pathological phraseology of the day, treats of that grade of the disorder which is between the acute and chronic; and this phraseology is allowable, provided it serves the purpose of fixing the student's attention to that kind of action which, without being marked by decided indications of a high inflammatory state, nevertheless implicates the vascular organization, in such sort as to require the idea of inflammation to be present in the mind; otherwise, the distinctions between acute, subacute, and chronic, are, being artificial, to be considered as in some measure objectionable.

The causes of carditis are those of inflammation generally; but it sometimes, when assuming the appearance to which the adjective *chronic* would be applied, creeps on insidiously, and occurs without an obvious cause. "Inflammation affecting the arteries and veins sometimes extends along their course, and at length reaches the heart." The prognosis in carditis is generally unfavourable.

Morbid Appearances.— Coagulable lymph thrown out upon the internal surface of the pericardium, and external of the heart; pus in the pericardium. Ulcers, abscesses, and even mortification, have been observed by some; this last must be an exceedingly rare occurrence. Adhesions between the heart and pericardium; the organ converted into a soft fatty matter. Membranous filaments between the heart

and its investments; and, in a word, all the appearances are here observed, which might be anticipated as the consequences of inflammation.

When rheumatic inflammation attacks the heart, it is, in most cases, a metastatic disorder; the arthritic irritation subsiding, and the patient being seized with palpitation, pain in the cardiac region, throbbing of the carotids, and great anxiety: but "during an attack of acute rheumatism in the remote parts, the heart sometimes beats in a much more forcible manner, than could merely arise from the inflammatory fever attendant upon the complaint." In this case, Dr. Reeder justly infers that the heart partakes *ab origine* of the rheumatic irritation; and it is of great importance always to watch the tendency of cardiac malady in affections of this kind, since violent rheumatism of the heart is ever pregnant with much danger. "A metastasis of gout, from the extremities to the heart, may also occasionally take place, and give birth to a train of morbid phenomena, very similar to those which arise from the rheumatic affection just now described." This, however, we believe to be a much rarer occurrence than in the instance of rheumatism; and it has generally appeared to us, that, for the most part, when gout leaves the extremities, and falls upon a vital part, the translated or vicarious disorder assumes more of a spasmodic than inflammatory character.

When carditis is complicated with inflammation of the veins, such inflammation may often be traced from a point, as after venesection, along the course of the larger vessels; and when arteritis is present, there is, in general, a very strong pulsatory action through the whole arterial system.

Treatment of Carditis.— Blood-letting is more imperatively demanded, perhaps, and called for to a greater extent, in this than in any other disease. Purging and blistering are also proper. "Digitalis, from its power of diminishing the action of the heart and arteries, has been recommended as an adjuvant remedy in this affection, and perhaps with some small prospect of advantage; but blood-letting must form our summum remedium."

"The subacute form of inflammation of the heart requires the employment of the same remedial agents as have just now been enumerated, only not quite to the same extent." In the chronic form of the disease, we must be careful of too freely employing the lancet, especially after the malady has existed for some length of time.

"The repeated application of blisters to the sternum, or the insertion of a seton or issue over the region of the heart, seems in many instances to be attended with much advantage, and hence

should not on any account be omitted. The preparationes hydrargyri, moreover, seem to excite an action in the system with which local inflammation appears scarcely or not able to exist; [scarcely compatible?] as for example, in iritis, the inflammation is quickly arrested in its progress, the effusion of lymph suspended, and its absorption even effected, by the operation of this medicine; whence its early exhibition may be strongly recommended in so dangerous a malady as chronic carditis, and in such quantity that the constitution may become as speedily under its influence as possible, the other means being also employed."

Of the utility of mercury under the circumstances supposed, we are fully convinced; but there ought to be some degree of caution in the lengthened administration of this medicine, lest we so weaken the exhalent vessels as to produce pericardial effusion. Dropsy, we all know, is apt to prove a sequela upon injudiciously protracted mercurial courses. In our practice, we have been accustomed to combine small doses of foxglove, calomel, and opium, as a remedy in chronic carditis; and it is a feeling with us, possibly founded upon hypothetic considerations, that the digitalis serves to counteract the tendency which the mercury, when used alone, gives to the lymphatic weakness now referred to. At any rate, we know from experience that the above union of medicinal articles constitutes a most excellent and efficient formula, in many cases of chronic ailments partaking of the inflammatory character. Dr. Reeder, indeed, mentions foxglove as a remedy, with squill, supertartrate of potass, &c., in cardiac affections, " should œdematous swellings of the face or legs, or serous effusion into the thorax or abdomen, take place;" but it is rather with a view to prevent these sequelæ, that we should be inclined to its administration.

" When the heart is affected with rheumatism, it will be necessary to have recourse to the same remedies as those just now mentioned as proper in carditis, such as blood-letting, blisters, purgatives, &c.; and which must be carried to as great extent, provided the vehemence of the attack seem to require. The preparationes hydrargyri should likewise be exhibited, so as to affect the system as speedily as possible, in order to check the morbid action, and prevent the deposition or suspend the effusion of coagulable lymph. A blister must be applied over the region of the heart, and either kept open, or an issue or seton inserted. The patient should be kept cool and quiet; and have nothing allowed, in the way of food, except gruel, panado, and the like."

In inflammation of the veins from venesection, blood-letting from the arm not affected, or cupping between the shoulders, must be had recourse to; and purgatives with

mercurials, so as speedily to affect the system, are also in this case advised: the same treatment is likewise recommended when inflammation, either of veins or arteries, arises from any other source.

Angina Pectoris. — The injurious influence of abstract nomenclature has been conspicuously operative, in reference to the notions excited in the mind of the pathologist by the above name; and morbid anatomy has been appealed to, in order to solve a question which is in itself a *begged* one; a sense of anxiety and strangling referred to the chest being at times an index of one condition of organs, and at others of another.

"One Physician, for example, is entitled to make use of the term *angina pectoris* to appellate a certain morbid condition, in which these symptoms form the most striking features; while another Practitioner, meeting with phenomena of a similar description, though arising from a morbid state very different in its seat, or perhaps nature, to [from] the one just now alluded to, is equally authorized to employ it. Whence it is impossible for us to be much astonished, that such a discrepancy in sentiment should have so generally prevailed; some ascribing its appearance to one cause, others to another cause. Most, however, may be considered as having been partly right; and *all wrong, who exclusively attributed its origin to one source.* Notwithstanding it thus appears a term of a vague and somewhat indefinite nature, yet, as it has obtained the sanction of most medical men, and also experienced an application by them for many years, it might, perhaps, be ineligible to substitute any other, or any number of others, in its place. We must, therefore, endeavour to point out the various causes from whence angina pectoris originates; to delineate the other signal phenomena which these causes produce; to depict those marks which may be considered as distinctive of each cause, or which enable us to discriminate one from another; and, lastly, to describe that mode of treatment which may be considered as most applicable to all such causes or morbid conditions."

The chief sources of the symptoms which would be generally allowed to be indices of angina pectoris are, according to Dr. Reeder, ossification of the coronary arteries, or that portion of the aorta whereat these arteries are given off, or of the valves; aneurism and ossification of the thoracic portion of the aorta; enlargement of the heart accompanying these morbid states; and a disordered condition of the chylopoietic organs, more especially of the stomach, producing indigestion.

But how often is it seen, that a *post mortem* examination shall detect none of the above-mentioned conditions; and where, from the absence of stomach affection, it is fair to presume, that the malady was immediately brought about

by some change in the sentient, or moving, or vascular organization, not appreciable by sight or sense: and, further, the dissector shall often find those structural alterations in and about the cardiac organs that are above enumerated, without the individual having been, during life, even the suspected subject of angina pectoris. Dr. Reeder, we think, therefore, is disposed to give too much credence to the ossific theory, when he states, that this condition of the coronary arteries will be found in the majority of morbid dissections. The following remarks, however, in reference to the *ratio symptomatum* of cardiac disorders, will be read with interest:—

"The source of that excruciating pain which chiefly constitutes the complaint of angina pectoris, as arising from an ossified condition of the coronary arteries, has been the subject of some disputation. Some have imputed its origin to spasm, others to a retardation or stagnation of blood, and others, again, to pressure of the nerves against these indurated vessels. Those who object to the notion of spasm being the cause, may ask,—How can an organic lesion, producing an abstraction of a portion of that fluid, which is so necessary for healthy and vigorous action, occasion inordinate or excessive contraction? To which it may be answered, that a due supply of arterial blood to muscular parts is certainly requisite for supporting their healthy and vigorous action; but does it necessarily follow, that spasmodic action cannot take place where there is, and also in consequence of, a deficiency of that fluid? It is not improbable, but what an organ so irritable as that of the heart may be thrown into spasmodic action, by reason of its not receiving, when incited to increased effort, that quantity of blood which is necessary for supporting such; or rather, perhaps, in consequence of its not having, at this time, that quantity of blood in its substance, which it usually has for carrying on its ordinary pulsations: this circumstance, I have already endeavoured to show, most probably exists, whence spasm of the muscular fibres of the heart may be produced, and this again give rise to the poignant or excruciating pain. The probability, too, of what I have last mentioned, is perhaps corroborated by the fact, that copious blood-letting or hæmorrhage occasionally induces general convulsions, oftentimes of considerable vehemence; and it is, moreover, a matter of much notoriety, that animals that are bled to death most frequently die convulsed. And it must be confessed, that a difficulty equally great attends the precise explanation of the reason, why the detraction of a principle so requisite for vitality and vigorous action should have the effect of inducing convulsions, which consist in inordinate and violent muscular contractions: such, however, is the case! The circumstance of pain, in this complaint, arising from spasm, seems also to be evinced by the sudden manner in which it invades and likewise departs, and the intervals of perfect ease with which it is alternated.

"The great anxiety experienced in a paroxysm of angina pectoris,

as arising from ossified coronary arteries, is perhaps attributable to the following state. The heart, when thus diseased, is not able to bear increased action, however such may be induced, as by muscular exertion, mental perturbation, or the ingurgitation of stimulating liquors, and hence, as before shown, fails under it: the exertive power of this organ being now greatly diminished, while the blood is continuing to return, for a time, by the veins, an accumulation of it soon takes place within the cavities of the heart, and also in the large vessels, and which immediately gives birth to the anxiety and sense of oppression, attended with a disposition to sigh, and to take frequent inspirations; these last are voluntary efforts, and performed with the intention of alleviating or removing these uneasy sensations. *Hence the accumulation of blood is the effect of a portion of the paroxysm, and not its primary cause, as some have been led to suppose; for if the heart were able to support this increased action, no accumulation would ensue, as it would then be able to transmit all the blood that were returned to it;* but as this organ is not capable of effecting that object, when so diseased, in consequence of the failure in its power thence arising, a coacervation, as before pointed out, takes place; and if it fall into a state of quiescence, a stagnation is produced; and which accumulation or stagnation gives rise, as already mentioned, to the distressing feelings of anxiety and oppression.

" The nocturnal paroxysms may either arise from the person lying on the left side, which has the effect of producing more pressure on the heart, and hence interruption to its free action, than lying on the right one; or from the patient eating a full supper, and lying upon his back; for the stomach, when so loaded, presses upon the aorta, and so, in some degree, impedes the flow of blood in that vessel, and hence its free egress from the left ventricle. In consequence, therefore, of the former or latter, the heart is incited to increased effort, in order to overcome the impediment which is thereby occasioned; but as its particular organic derangement will not allow of, or support, this additional exertion, its energy becomes more or less enfeebled, and its action diminished; pain takes place, and an accumulation of blood following, induces anxiety and a sense of oppression, in consequence of which the patient awakes, and finds himself thus affected.

" Paroxysms of angina pectoris are much more readily induced when the person takes exercise after a full meal, than they are when he does the same at other times; the exposition of which may be, that food proves, in a greater or less degree, according to its quality, a stimulus to the system in general, by reason of which the circulation is somewhat accelerated; and hence the application of a cause, at that time, of much lower intensity, will suffice for the generation of a fit, than would have done, provided the constitution had not already been under some degree of stimulation; and by such exercise, perhaps, which at another time would not have been productive of any, or at least much inconvenience.

" The state of obesity, that not infrequently occurs in angina pectoris, may chiefly originate from the following circumstances.—

The mal-organized state of the coronary arteries materially tends, as already shown, to impede and weaken the action of the heart, whereby the blood is not propelled into the vessels, especially of the more remote parts, with its wonted degree of impetus; whence the secretions, particularly the thinner ones, are much diminished, plethora ensues, and the pinguid matter is then deposited in more abundant quantity than ordinary. This process, at the same time, is favoured by the patient's appetite not being impaired, nor perhaps his diet restricted, and not being able to take a due quantity of exercise, by reason of the peculiar nature of the complaint, and there also being, in many people, a constitutional tendency to the above condition, about that period of life at which this disease most commonly invades.

"The effusion of serous fluid into the cavity of the thorax, producing hydrothorax, arises from the frequent accumulation of blood that takes place within the chest, during the paroxysms of this disease; the exhalant vessels being at those times roused into increased action, in order to free these parts, if possible, of their onerated state, by pouring forth the serous portion of the accumulated blood, which proves the cause of its occurrence.

"The readiness with which paroxysms of angina pectoris are brought on, is in proportion to the degree to which the action of the heart is accelerated. If the patient, therefore, indulge in the potation of much strong liquor, they will be more speedily induced, than if a smaller quantity only be taken. And emotions of mind of considerable intensity have much more potent effects, in that way, than if they only prevail to a minor extent. And as walking up an acclivity, up stairs, against the wind, or at a quick pace, requires greater muscular exertion than walking upon a plain, and in a leisurely manner, the former will occasion a much more rapid return of blood towards the heart than the latter, and consequently induce greater celerity in its motion, and hence a more speedy production of these paroxysms.

"The entire possession of the intellectual faculties during the paroxysm, even when the pulse at the wrist is not to be felt, is to be attributed to the circulation still remaining somewhat perfect in the brain, or, at least, more so in that than in other parts of the body.

"The pain in the region of the heart, induced by a disordered state of the digestive organs, may be accounted for by the stomach and perhaps œsophagus being much distended with flatus, and so compressing, in some degree, the heart; this is evinced by the sudden relief which the evacuation of this aëriform fluid gives: but the pressure is not sufficient to explain, in every instance, the whole phenomenon; and we must, therefore, have recourse to the principle of sympathy subsisting between these organs; whence the pain may be considered as partly sympathetic.

"Where the coronary arteries are diseased, much distention of the stomach may sometimes become the exciting cause of a paroxysm; for the stomach, when thus inflated, presses upon the heart, and so proves some impediment to its free pulsation: it is consequently

excited to increased effort, in order to overcome, if possible, that oppression; but as it is not able to support augmented action, a paroxysm follows, on the principles already pointed out. An ossified state of the coronary arteries may, perhaps, impede the movements of the heart, in proportion to the extent of such induration along their course. The pain in the arms, which is frequently present at the same time with that in the region of the heart, must be considered as sympathetic. The blood has been found quite fluid and attenuated in some who have died suddenly of angina pectoris; the same appearance is also sometimes met with in persons, in whom that event has taken place suddenly from other causes."

Treatment of Angina Pectoris.— Carefully avoid any thing which either stimulates the heart, or conduces to plethora. Exercise and food must be both carefully regulated, neither being taken to any extent at a time. Malt liquor to be generally refrained from. The drink (water) may, however, be impregnated with a little ginger or lemon-peel, if agreeable. Suppers are to be avoided. Due warmth, especially of the feet, to be preserved. When it is necessary to take blood, the patient must always be in the recumbent position. Issues may be opened over the region of the heart, or in the thighs or arms.

In the paroxysm, a few ounces of blood may be taken, even when the pulse is scarcely or not at all to be felt. Aromatics, such as peppermint, are to be given after bloodletting. Blisters are sometimes called for. Opium, in moderate doses, is indicated, when the pain is severe; it is better given alone than combined with aromatics. This is the best medicine that we can employ when the patient is retiring to rest, in order to prevent nocturnal paroxysms. If syncope continue long, slight electricity or galvanism may be applied to the thorax; and, in extreme cases, artificial inflation with the bellows had recourse to. Sinapisms, too, may be applied to the feet.

When angina pectoris is complicated with hydrothorax, together with diuretics, such as squill, digitalis, &c., small and occasional detractions of blood may be of service, if the patient be of a plethoric habit. "The hydropic effusion, however, in general, very soon recurs, and which may again be removed by the employment of the same remedies; but at length it withstands the operation of any medicine whatsoever, and then the patient is very soon destroyed."

The above rules of treatment we have abridged from Dr. Reeder, who states that "they are chiefly intended for that variety of the disease arising from a mal-organized state of the coronary arteries," but are applicable to other structural affections of the organ.

The next section of Dr. Reeder's treatise is devoted to the consideration of "*Change in Structure of the* VALVES *of the Heart and large Arteries, and on morbid Contraction of the different Apertures to which they are attached; also on Alteration in the Structure of the Muscular Substance of the Heart itself.*"

Our author very properly remarks, that

"An altered condition in the texture of the valves, and a morbidly contracted state of the orifices which they are destined to shut, form a class of organic lesions, perhaps, much more incident to the heart than any other; and, like most other affections of this viscus, give rise to a train of symptoms, oftentimes very alarming in appearance, never failing to induce distressing apprehensions on the part of the patient, and invariably proclaiming the existence of a dangerous and incurable malady."

And of the valves, the aortal are the most obnoxious to disease; these having sometimes calcareous matter deposited between the membranous layers of which they are composed, and at other times the valves are wholly or partly converted into a substance analogous to cartilage or ligament. All the other valvular bodies are, however, occasionally affected. In some rare cases, excrescences or fungi have been found attached to them: granulations, "or, as they are sometimes termed, vegetations, have also been met with, growing from different parts of the membranes which line the cavities of the heart." "Where any of the apertures of the heart are dilated, and their circumference, at the same time, indurated by cartilaginous or osseous formations, it must be concluded that the dilatation first took place." But obstructions frequently give rise to dilatation. Some organic affections, such as contractions of apertures and ossifications of valves, will render the heart incapable of propelling freely its contents forward; others, such as a ruptured, or lacerated, or reticular state of the valves, on the other hand, allow regurgitation. From both, however, similar effects, and consequently *analogous symptoms*, are produced.

"Sometimes, however, these two occurrences take place in the same case; as where the valves are so diseased as not to close the orifice properly, or when they are perfectly rigid and immoveable, the blood is then not only prevented from passing forward, but it is also allowed, to a certain extent, to flow in a retrograde manner. To explain the mode in which this ruptured, lacerated, shrivelled, or net-like state of the valves produces obstruction, we may first take the instance of that condition of the semi-lunar valves of the aorta. In this case, part of the blood that has been sent into the aorta will be propelled, on every systole of that vessel, backward into the left ventricle, and which regurgitated blood will have the effect of pre-

venting the left ventricle from receiving all that it should do from the left auricle, and the latter, again, from being thence partly filled, will prevent the free egress of blood from the lungs, whence arises a retardation in its transmission through the pulmonary veins, pulmonary artery, then right ventricle, right auricle, and lastly through the veins in general; and to this last circumstance, the great lividity of the external surface, which often takes place, must be attributed. If the mitral valves should be so affected, the blood in the left ventricle will, on its contraction, be partly sent into the aorta, and partly back into the auricle, whence a retarded transmission of it through the vessels of the lungs, the right cavities of the heart, and venous system in general, will, as in the other instance, be induced. A similar explication may be offered for the retardation in the flow of blood, where the semi-lunar valves of the pulmonary artery, or the tricuspid valves, are so affected, and permit the regurgitation of blood; only, in this case, the transmission of blood through the lungs will not, in any degree, be impeded."

When the apertures are contracted, or the valves enlarged on the left side of the heart, palpitation is a frequent symptom: the pulse is hard, quick, irregular, and intermittent; sometimes weak, small, and contracted. A hissing or rustling sort of noise is occasionally perceptible. Dyspnœa is urgent. Lividness of countenance and dejected aspect are present. Cough, and not seldom hæmoptysis, supervene. The jugular veins are seen sometimes to pulsate; and a pulsation is perceptible also in the epigastric region. Dreams, headach, vertigo, and even delirium, occur. The liver on some occasions becomes enlarged. Anasarca, ascites, and hydrothorax follow. When the right side of the heart is affected in the same manner, the dyspnœa is not so urgent, neither is hæmoptysis of so ready induction; since, in this last case, there is a direct impediment to the transmission of blood through the chest, and consequently the pulmonary vessels do not so immediately and readily become congested. "When the valves permit the reflux of blood, the same symptoms are produced as those which take place when the valves are enlarged, or the apertures contracted;" but in this case there are not two or three pulsations of the heart to only one at the wrist, nor that jar or thrill communicated to the hand, as in ossified valves. Apoplexy is not seldom occasioned by those diseases that impede the flow of blood through the heart; which circumstance is of easy explication, as are nasal and other hæmorrhages. Enlargements of the liver and dropsical effusions are attributable to the same sources, viz. venous congestion.

Rupture of the Heart, it need hardly be said, is necessarily fatal, and in general death is immediate: it may be the consequence of some one or more of the diseases above

enumerated, or occasioned by the parietes of the organ being morbidly thin, or, as our author always expresses it, *tenuous.* "There are some cases, however, on record, in which this accident has happened, and yet the heart was not at all previously diseased."

The muscular substance of the heart becoming diseased, due contraction is of course prevented, as when it is converted into osseous or cartilaginous substance. These are by no means so frequent affections as a morbid condition of the valves: they are more usual in the ventricles than the auricles; and the latter have, in consequence of them, their muscular power proportionately increased, so as to be more competent to a double duty—to wit, their own and that of the ventricles. "It appears that the circulation may be carried on, when the structure of the ventricles is so much altered as to render them totally incapable of contraction." In ventricular diseases of this kind, there is urgent difficulty of breathing, with a sense of impending suffocation; the face is livid; the pulse very feeble and irregular; and after the frequent recurrence of the paroxysms, dropsical affections at length supervene. The treatment is to be the same as that recommended in angina pectoris.

Enlargement of the Heart, from Dilatation or additional Substance, or both conjointly.—That aneurismal dilatation of the organ may occur as a consequence of the disordered states above adverted to, is of easy conception; but "the reason why the parietes of dilated cavities at one time become increased, and at another time diminished in thickness, when the same causes are existent, has not as yet been satisfactorily ascertained; but it is probable that the former, to wit, the augmentation, would generally take place, provided there were always sufficient constitutional vigour to favour the necessary generative process. Hence it occurs, that the parietes are frequently diminished in the old and feeble, and increased in the young and robust." An aneurismal pouch may sometimes form on the heart, occasioned by a rupture of the muscular parietes of the cavity, and the consequent distention of the external membrane into a sac.

Symptoms of Enlarged Heart.—Palpitation, with sometimes a visible motion of the organ even through the clothes; pulse strong, full, and mostly regular; sense of oppression and anxiety; dyspnœa, hæmoptysis, and occasionally epistaxis. Liver affections, after a time, emaciation, dropsy, and sudden death.

In the treatment, similar rules apply as in the former cases. "Digitalis may be judiciously administered, and an issue or seton inserted over the region of the heart."

Diminution in the Size of the Heart.—This is rarely met with, and cannot with certainty be detected during life. It has been supposed by some to be occasionally an exciting cause of phthisis. It is, of course, out of the reach of remedial agents.

Adhesion of the Pericardium to the Heart is not an uncommon sequela of inflammation. It occasions an uneasy sensation of pulling or dragging in the region of the heart; it may or may not occasion palpitation. The pulse is for the most part irregular, anxiety is present, and a jarring sensation is felt upon applying the hand to the heart.

Polypi.—The mistakes of the ancients with respect to polypous formation are familiar to every one; that is, that what they considered organic tumours growing from the parietes of the heart, are merely deposits of coagulable lymph thrown out *in articulo mortis.* In some cases, however, organic tumours have actually been found, to which the term polypus might be properly applied.

Sympathetic Affections of the Heart.—These may arise from a disordered stomach, from nervous or hysterical affections, from mental perturbation, and from general debility. They are to be distinguished from organic diseases, which they often simulate, by the accompanying palpitation not being attended with so much dyspnœa, or sense of oppression, and by the countenance not having that purple or livid tint, which is so characteristic of structural affection. When liver affection is present, it will be of importance to ascertain whether it has been consecutive or primary; the latter is the case in sympathetic, the former in organic disorder. Functional, however, is apt to terminate in structural affection, both of the heart and the liver.

Sympathetic affections are principally remedied by those medicinals which operate immediately upon the first passages. All articles of diet are to be shunned which induce dyspepsia—in a word, "a plain and spare diet; proper exercise in the open air; medicines which keep the bowels gently open, correct acidity, and strengthen the stomach, such as laxatives, antacids, and bitters; the cold or tepid bath; and carefully avoiding the application of all exciting causes;" constitute the plan of treatment. Accordingly as general weakness or a plethoric state seem to have had a share in the production of the malady, tonic medicines or depleting measures are called for.—Of congenital malconformations of the heart there are a great many varieties, which Dr. Reeder points out, but which are all, of course, irremediable, as far as radical treatment is concerned.

Hydrops Pericardii.—This is, for the most part, the

result of inflammation, or of irritation induced by organic disorder. The countenance is anxious, the sleep interrupted by dreams, the respiration difficult, pulse small and intermittent, urine in diminished quantity, feet œdematous. Percussion of the chest fails to give a hollow sound. When there is dropsy of all the cavities of the chest, the recumbent position immediately induces a sense of suffocation; but a horizontal or bent position is often preferred in cases of mere hydrops pericardii. The treatment is similar to that of dropsy generally.

Aneurism of the Thoracic Portion of the Aorta. — This may be true or false, circumscribed or diffused, according as the outer coat of the artery is expanded into a sac by reason of a rupture of the two other tunics, or as all the coats of the vessel give way. The symptoms are, difficult breathing, sometimes hoarseness, tendency to syncope, and occasionally a noise within the chest somewhat analogous to the sound occasioned by the rushing of water. Flatulence; difficult deglutition; palpitation; pulse different in the two wrists; and in the advanced states, if the patient is naturally thin, or becomes emaciated by the disease, the tumour may be felt pulsating in the chest.

In this deplorable disease, abstinence and rest must be enjoined. Digitalis may be occasionally of service; and "venesection may be performed every two, three, or five days, until the desired object be attained, of diminishing the force of the circulation, always observing to place the patient in a recumbent position during the operation, in order to avoid the supervention of syncope; and if this attitude should not be sufficient to prevent its recurrence, the orifice must be made somewhat small, and the quantity of blood abstracted at each time rather moderate."

Pulsation in Epigastrio. — This may be produced by pericardial adhesion, bringing the diaphragm, &c. into consent, by which an inordinate impulse is given to the liver; "and through the medium of it, the pulsation shortly after becomes remarkably obvious in the epigastric region." "An enlarged condition of the heart, whereby it descends so low as to act upon the liver, and tumours attached to the diaphragm, may also produce this affection." The margin of the lungs may occasionally, by becoming of a more solid consistence, transmit the heart's impulse, so as to be felt in the scrobiculus cordis. Diseases in or about the pancreas or pylorus, by interfering with the descending blood-vessels, may occasion it; but it is in by far the greater number of cases induced by a morbid or disordered state of the stomach and intestines. The actual source of the symptom it is, however, very often difficult to trace.

We have thus gone hastily through Dr. Reeder's work, which, as mainly consisting of compilation, we think very creditable to his industry and discrimination. We cannot, however, conclude our account of the production, without stating that the style of its author is faulty in the extreme; for while throughout the book an attempt at fine writing is conspicuous, there is, at the same time, such a slovenly construction of sentences, mixed with sesquipedalian verbiage, that the effect is not only often ridiculous, but the sense is sometimes obscure. We need not go further for a justification of our censure than the very threshold of the volume; for it is in the following manner the preface opens:—

"If we penetrate into that vast labyrinth of speculation, in which the art of medicine had, for so many centuries, been deeply involved;—or glance at that *proclivity*, which had so long invaded the human mind, to *fabricate hypotheses*,—as also to receive and adopt, with implicit credence, the theoretical doctrines of ingenious men;—or survey that rigid adherence, or bigoted deference, which so many were formerly wont to pay, with the utmost sedulity, to the opinion and practice of their predecessors,—thinking, no doubt, that they had attained the climax of all perfection;—it will then not appear a matter of surprise, that those departments of pathological science, which, in a great measure, precluded this opportunity to theorize,—that could only be elucidated and improved by strenuous investigation,—the diseases discriminated by careful comparison, and their nature substantialized by actual demonstration of morbid changes,—should have, in so eminent a degree, experienced the fate of neglect."

From a man of Dr. Reeder's good sense and extensive erudition, we hope for better things at another time.

III.

1. *An Inquiry into the General State of the Profession of Physic, and the several Departments of which it is composed; including a brief View of its Origin, Progress, and Present Condition, in the United Kingdom of Great Britain and Ireland: being an Attempt to develope the Fundamental Principles which should guide the Legislature in regulating the Profession.*
2. *An Inquiry into the Present State of that Department of the Profession of Physic which constitutes the Province of the Physician, as it exists in England; of the Laws which have been enacted for its Government; and of the Manner in which these Laws have been administered.*

These papers are reprints from a medical journal of great respectability: and although the notice of them, even in their

present shape, may in some measure involve a departure from our principle of non-interference with contemporary labourers, whether we approve or condemn, we have determined to bring the subject-matter of the present productions before the readers of the REPOSITORY, partly because we have been especially solicited so to do, and partly from the impression on our minds of the vast importance attached to the questions here agitated.

There is great room for dissatisfaction with the present economy of Medicine, considered as a profession. It ought to be, and would be, the most liberal and *liberalizing* of callings, were it established upon such a footing, that the divisions into which it is parted were made at once so distinct and so in unison, as that they should together harmonize into one whole. This is the case with the two other Faculties; in which the several duties, degrees, emoluments, and honours, are so adjusted, as to be definite and practically understood: and *could* such an adjustment be effected in the Faculty of Physic, how different (to say nothing else on the score of advantage) would be the feelings with which men of liberal minds and honourable sentiments might engage in the practice of the art! At present, it is any thing but thus regulated: the Physician complains of the inroads upon his interests made by the Surgeon, in the latter decrying the importance of medicine, and inconsistently taking upon himself its practice and rewards; the Apothecary charges the Physician with attempts to exclude him from the profits of his labours, by encouraging the Druggist as a dispenser of, whereas he should be a mere dealer in medicinals; the Physician retorts the charge upon the Apothecary, complaining that he refuses to recognize the superior attainments of the higher orders of the Profession, and even sneers at the name of Physician, when used to designate a greater measure of medical science than that possessed by the Apothecary; the Surgeon, again, looks with jealousy upon the Surgeon-Apothecary, as an individual aiming at the combination of incompatible pursuits; and, in a word, each department of the Profession is discontented and disgusted with its fellow department, even where there exist private friendship and good understanding among the individual members of this incongruous mass.

If the question were put, Ought things to be so? there could be no doubt respecting the universality of the negative answer: and out of this reply would immediately grow up another question, viz. Is the evil, acknowledged by all, capable of being remedied?

The author of the pamphlets before us thinks that it

is; and he is, moreover, of opinion, that an appeal made to the Legislature, upon the broad base of mutual accommodation, would be listened to by the senate, and, in the end, productive of the highest advantages, at once to the Profession and the public.

It seems to us, that the present state of society demands a division of practice into three distinct branches. In the first place, there ought to be a class of Practitioners whose qualifications should comprise a knowledge of *every* department of the art, and to whom, in the general way, application should be made in the first instance: in the second place, a description of individuals is called for, who, having given from the first an almost exclusive attention to minute anatomy, with medical and operative surgery, should be considered as referée Practitioners in surgical disorders, and operators in all cases requiring much manual dexterity or practical tact: there ought, lastly, to be the Physician,—who, inferior, perhaps, to the general Practitioner in the knowledge of minute detail, and certainly below the Surgeon in acquaintance with particular anatomy, should be far above them both in respect of classical information, general science, and the *literature* of his particular art.

Now, the inroads which have been made upon the principles of division and exclusion we have thus announced, have arisen mainly out of the circumstance we on a former occasion slightly adverted to,—viz. the facility with which, in the present day, the higher honours of the Profession are obtained; and certain we feel, that the preservation, or rather restoration, of the above order of things, supposes a greater impediment than at present exists to the easy gratification of that ambition which is natural to every one, to take the lead in his profession, or rather to occupy the highest stand that his profession holds out. Under this feeling, we must confess, a somewhat different opinion from that of our present intelligent pamphleteer, in reference to the jealousy with which the London College guards its body against the reception of members, by which, in many cases, it would be likely to be disgraced. Objectors against the aristocratic enactments of learned corporations reason too much upon the principle of an equality of knowledge establishing an equality of rights and privileges; but were this principle allowed and acted upon, every distinction of society would be at once done away with, and a disgusting *radicalism* would pervade our institutions of science. "It is a matter of notoriety," says our author, "that those universities whose graduates are so peculiarly and exclusively favoured by the London College, have never been celebrated as schools of physic; and that

their graduates are indebted for all their essential acquirements to the medical schools of other universities." Let this be granted to its fullest extent, and we yet would contend, in spite of the admission, that it is for the graduates of the English universities, that the highest distinctions in medicine ought to be reserved. The question, we repeat, is not as to medical competence, but as to rank and education; and that a two years' residence in a northern or foreign university should place the individual upon the same footing, in respect of literary distinction, with one who has spent the best portion of his days under academic bowers, would surely be an injustice done to the cause of scholastic initiation. We all know, too, that the medical education of the English collegiate is not confined to his own alma mater: he invariably embraces the ample opportunity which the metropolis affords for professional instruction, and for the most part visits the northern seminaries, or some of the foreign schools, for the same purpose: indeed, this is admitted in the very terms of the objection just quoted.

We would recommend, then, that all new legislative enactments should recognize the demands which the Faculty of Physic ought to have upon the scholastic rank of its superior members. Let there be a guarantee furnished, that such members shall likewise go steadily and minutely through the rudimental and every other part of their particular calling; and then the rank of M. D. will be restored to its proper footing in society;—the Physician will be respected and consulted, not envied and sneered at, by the general Practitioner,—and the Surgeon, likewise, would be less likely to invade his province, than is confessedly the case in the present constitution of things.

The other radical evil, to which we likewise formerly adverted, is the mode of remuneration for the professional service of the general Practitioner. Let him continue, if you please, to dispense medicine; but withhold from him all possible temptation to burden his patient with more drugs than are necessary for the cure of the disorder. Let him be empowered legally to demand a direct and professional, not intermediate and tradesman-like payment, for his skill, and time, and trouble.

In the above two provisions, (we finally repeat it as our opinion,) would be found the ingredients of the so much desired and so much talked of reformation in the polity of medical establishments.—We now proceed to give a summary view of the tracts that have elicited the preceding remarks; and, in doing so, we apprize the reader, that it is our purpose merely to analyze, not to comment. In what,

then, remains of the present paper, the review of the pamphlets must be considered as conveying only the sentiments of their author.

The first tract, as its title indicates, relates to the fundamental principles which should regulate medicine generally. It opens with a brief sketch of the origin and progress of the Profession in modern Europe, and of the condition in which it exists at the present day in the "United Kingdom." The practice of the art was for a long period confined to the hands of the priesthood, who were, however, restricted from fully exercising it by the interference of the papal power, which, "jealous lest the lay employments of its clergy should interfere with their clerical functions, prohibited them from practising many branches both of physic and surgery."

"The disadvantages immediately resulting from the restrictions imposed by the monks, they obviated, as much as possible, by suitable expedients. Thus, when prohibited by a papal bull from leaving their cloisters for the purpose of attending the sick, they gave advice at home to those who consulted them; forming their judgments oftentimes on the reports made by the friends and relatives of the sick, and by inspection of the various excrements submitted to their examination. When manual assistance was required, they sent their servants to officiate, who were also their barbers,—and hence arose a class of Practitioners afterwards sufficiently celebrated throughout Europe—the Barber-Surgeons."

It is interesting to trace the various contentions, even at this early period, among the different professors of the curative art; and it is important to remark, that an uniform tendency, even in the remotest times, was ever manifested, on the part of the people, to "disregard all collegiate rights and restrictions, and to employ those whom they found most suited to their purposes, namely, the general Practitioners, or those who combined the several departments most completely in their own persons."

It was the French court which first rescued surgery from its pristine obscurity and degradation: its profession and practice still, however, continued to be distinct; but the distinction was rather nominal than real, or, at any rate, it did not extend further than "the relinquishment of surgery by the Physicians." Things were in this state, when the London College of Physicians was instituted, under the sanction of Henry VIII., and by the instigation of Linacre, the principal Physician of that monarch.

"Of this body the general policy seems to have been, to insure a high degree of learning on the part of its members, rather than to supply the public with medical Practitioners, proportionate to its necessities.

" And the effect has been, in a great degree, similar to what we have already seen to result from the Papal restrictions imposed on the clerical Physicians of the continent. For, by requiring a high degree of literary qualification from its associates, it necessarily narrowed the institution, and rendered it inadequate to supply the wants of the community; while by declining all connexion with surgery, it forced the public on calling into existence a class of Practitioners, inferior indeed in learning and science, but more useful, as combining in their own persons the qualifications necessary for giving relief in all the varied forms which disease assumes.

" These Practitioners became in time consolidated into other corporate bodies, as their peculiar education and more particular pursuits directed them. And we have now both a College of Surgeons, and a corporation of Apothecaries, as well as a College of Physicians, in each division of the United Kingdom.

" This last subdivision, however, made no change in the actual avocations of the several parties. For, notwithstanding the difference of denomination, both Surgeons and Apothecaries were, in fact, general Practitioners, and continued to be more or less engaged in the whole business of general practice.

" But, though equally engaged in this most necessary department, these latter corporations were very unequally qualified for undertaking its arduous and important duties. The Surgeons being necessarily well grounded by their education, in the anatomy and physiology of the human frame, possessed in consequence the foundation, on which experience might rear a valuable superstructure. But the Apothecaries, being originally initiated only into the art of compounding and dispensing drugs, according to the prescriptions of the Surgeons and Physicians, could not, as a body, be deemed qualified for the duties of general practice, in which they were, nevertheless, called on by the increasing wants of the public, and the very nature of their own occupation, extensively to engage. Individually they might, and no doubt did oftentimes possess themselves of the necessary information; but the public could have no sufficient assurance of their general competency, a knowledge of pharmacy only being required by their education.

In spite, however, of these collegiate and legislative enactments, and, indeed, partly in consequence of the spirit in which some of them have been framed, much remains to be accomplished in the way of reformation; and since the present complicated state of society obviously demands Physicians, Surgeons, and general Practitioners, the question of medical polity narrows itself into that of the best mode of securing competency in the respective individuals professing and practising the several departments; and of protecting them in the free exercise of their several functions.

" The general Practitioner more perfectly represents the medical character than any other." He ought to be " fully competent to the practice of physic, *surgery*, midwifery,

and pharmacy; in fact, to every thing that medical science and practice can be supposed to extend to." It must, therefore, as a fundamental principle in reform, be henceforth made imperative upon every one entering upon the practice of medicine, (excepting the Physician himself), that he shall have proved his competency, by pursuing the regular course of education laid down by the College of Surgeons, and undergoing the necessary examinations before them; in fact, by becoming a member of the College. For of all the modes that exist of qualifying general Practitioners, the most perfect is that which *lays the foundation in surgery and physic*, and supersedes the other departments. The present system of apprenticing to apothecaries proceeds, it is well known, upon the reverse principle.

In respect to the duties and qualifications of the Surgeon, our author expresses himself in the following terms:—

"The great use of this body is to serve as general Practitioners. These, to be really useful, must combine pharmacy with their other practice. So long as they are prevented from engaging in it, dispensers must exist as a separate class, and thus the profession becomes burdened with superfluous hands, who must inevitably derange the economy of the body at large, and pervert its best purposes. For the dispensers, finding pharmacy alone inadequate to support them, are forced upon extending their views to surgery and physic, both of which they practise extensively, without adequate qualification.

"Thus the refusal of the Surgeons to combine pharmacy with surgery, must even have the effect of forcing into existence a class of general Practitioners of very inferior quality, to the incalculable injury, both of the regular Profession, and of the community.

"The public must be supplied with general Practitioners: these cannot be so effectually formed by any means as by Surgeons practising pharmacy; it is incumbent, therefore, on the surgical colleges, to ascertain, and avow the necessity of this combination, and to meet it openly, by qualifying their members equally in surgery, pharmacy, and physic."

Does the writer not thus propose a complete amalgamation between the Surgeon and the Surgeon-Apothecary? or rather, that the former should be merged and lost in the latter? But we have before expressed our resolution of no further interfering with our own remarks, and will, therefore, proceed in analysis.

The writer assumes it as an unquestionable principle, that whatever body claims the right of determining upon the qualification of the Physician, "should either provide him with the means of acquiring the necessary information, or, at least, insist on such a course of education being pursued, and

on such proofs of real competency being evinced by actual examination, as should leave no doubt respecting the ability of the candidate." On this principle, Aberdeen, and St. Andrews' privileges should be done away with. Edinburgh and Glasgow establishments "need no change." "Dublin ought to forego its antiquated and valueless University Medical Institution, and should confer degrees on the foundation of the school of physic only;" and "Oxford and Cambridge Universities should either establish competent schools of physic, or else should require, from the candidate for medical honours, a competent course of medical education, framed, not according to the antiquated charters of the colleges, but to the more enlightened experience of modern times."

We can hardly refrain from saying, in spite of the restriction that we have imposed on ourselves, that the following remarks are more in harmony with those we have ourselves ventured upon, in reference to the Physician's requisites, than they are with the assumption of the writer, that the Edinburgh and Glasgow establishments "require no change;" and with his occasional implications, that the demand for literary qualifications, and collegiate honours, on the part of the legitimate M.D., supposes a relic at least of the folly and superstition of monkish institutions.

"As the mere Physician is a character required principally for the higher ranks of society, to uphold the dignity and literary reputation of the Profession, and improve its science by the collateral aids which general science and literature afford, perhaps sound and enlightened policy would require, that his qualification should be rated rather above than below the ordinary mean.

"It has been shown that this department is not of very extended utility, or in high demand. The lustre, however, which collegiate honours, a high antiquity, and general estimation, shed upon it, must ever cause it to be regarded as the department of highest rank and consequence.

"On this account it will be an object of ambition to many aspiring minds, whose real interests should lead them to prefer the humbler, but more necessary department of general practice, where success is more speedy, and pecuniary recompense more certain. And as this ambition, if indulged in, would lead but to excess in this department, and consequent disappointment to the individual himself, it might be advisable to repress the tendency towards it, by making the qualifications higher than mediocrity of talents, or very slender fortune, could attain to.

"While the Surgeons and general Practitioners then continue to be educated in the way that best prepares them for the practice of their art, it seems fitting that the Physician should still emanate from the universities. *The Profession at large would thus be best preserved from degenerating into a mere trade, the Physicians constantly*

infusing into it a salutary portion of enlarged principle, and liberal science. For the cultivation of these, no places can be so conducive, as our venerable universities; for, however there may be evinced on the part of them an undue attachment to antiquated systems, and a tardiness in adopting those progressive improvements, which the exercise of human intellect is continually arriving at, they yet exert a potent and most extensive influence on the progress of mind, an influence tending to the invigoration of natural faculties, and the extension of knowledge; and, paradoxical though it may appear, even to the creation of that innovating spirit which they seem, in their corporate capacity, so pertinaciously to resist.—'Every seminary of learning,' says an eloquent and impressive writer, 'is surrounded with an atmosphere of floating knowledge, where every mind may imbibe somewhat congenial to its own original conceptions.' Whence we may conclude, that, however courses of education may be restrained within narrow boundaries, by the too rigid adherence of our universities to old established systems, the full exercise of intellect cannot be repressed, nor the progress of knowledge arrested."

Our author next engages in a brief notice of the "medical corporations which exist in our several capitals, called Colleges of Physicians." He objects, in toto, to the excluding views which regulate their polity; and proposes the substitution of one great superintending body, or medical institution, in each division of the United Kingdom, to comprise both the Physicians, and Surgeons, and general Practitioners, and to be governed by a medical council, annually appointed, and selected, in certain proportions, from the several departments. "Such an institution," he continues, "would be of incalculable advantage, by consolidating the various views and interests of the profession, and directing them to their only legitimate end—the good of the community!"

An interference on the part of the legislature, to insure a supply of regular and legalized Practitioners; and to afford a guarantee against the usurpations of unqualified individuals, is in no measure, we are told, inconsistent with the natural rights of individuals to think and act for themselves: all that the interposition of law would insure, would be protection from imposition.

The encouragement given by government to the sale of secret nostrums is then canvassed and condemned; and the writer, in conclusion, presents the following summary view of the whole arrangements proposed:—

"The profession of physic to be organized by the legislature.

"Conformably with its natural tendencies, and the manifest and ascertained wants of the community, to consist only of general Practitioners, Surgeons, and Physicians.

"Physicians still to emanate from the universities, but, in every

instance, to undergo a regular course of medical instruction, both theoretical and practical, and be proved as to their competency by actual examinations, previous to obtaining their medical degrees.

" Surgeons to be qualified, as heretofore, by apprenticeship, if this should continue to be deemed essential, — and by attendance on lectures, dissections, and hospital practice; a competent knowledge of physic and pharmacy being superadded to their other attainments, in order to qualify them for acting as general Practitioners.

" The corporations, at present so numerous, inconsistent, and unprofitable, to be consolidated, and one general medical institution to be established for each division of the united kingdom, to include all members of the Profession resident therein, whether Physicians, Surgeons, or general Practitioners.

" Each institution to be governed by a council, annually elected, in certain proportions, from the Practitioners of each class resident in the metropolis.

" The objects of the institutions to be, — to superintend the general Profession throughout the united kingdom, each in its own division, yet all in concert, and with such a community of rights and privileges mutually established, as should leave the individual Practitioner unshackled with useless trammels, and free to employ his talents in whatever way may be most conducive to the mutual advantage of himself and the public.

" With respect to the details of superintendence, each institution to scrutinize the degrees of all Physicians seeking admission into it; to examine all candidates for surgical or general practice by a suitable court of examiners, elected out of the general medical council in due proportions, from each department; to found professorships in the several branches of medical and physical science; to form a national medical library; to establish a national museum of anatomy and natural history; to publish a national pharmacopœia, the several institutions acting in concert, so that their several pharmacopœias shall correspond; to provide also a popular pharmacopœia, containing such simple formulæ as may be safely entrusted to domestic management, accompanied by clear and precise instructions for applying them to those slighter ailments which are not generally considered as claiming the attendance of the medical Practitioner, and yet, when neglected or maltreated in the beginning, too often lay the foundation of severe and irremediable disease; and, finally, to constitute the great medical council of the nation, or court of appeal, for all occasions on which either the courts of justice or the legislature might require its assistance.

" The pretences of quackery being thus removed, the open protection which it now enjoys, by means of royal patents, to be withdrawn, and the diffusion of its glaring falsehoods through the medium of the public press to be discountenanced, by whatever means the legislature in its wisdom should deem just and expedient.

" By such provisions as the foregoing, it is humbly presumed, that the energies of the Profession would be most effectually called forth, and the science improved; that the public at large would be benefited;

and the individual members of the Profession preserved from undue collision amongst each other, and secured in all those rights and privileges which the present state of the Profession, so disorganized and incapable, notoriously fails of protecting.

"When the soundness of the principles on which these several propositions rest is considered, and the facility of carrying them into effect without the slightest infringement of personal rights, or the injury of any individual, is contemplated, — it is hoped that the adoption of the system will not be vehemently opposed by any part of the Profession; and that an enlightened legislature, anxious for the public good, will use its endeavours to promote this in so essential a particular, by effecting a reformation so loudly called for."

Supposing the British Senate seriously to have set about investigations, with a view to legislative enactments, the following documents are referred to in an appendix to the pamphlet, as important aids to the inquiry, and as readily obtainable, when called for by authority.

"The statutes of the Universities, as far as they regard the courses of medical instruction, and the inauguration of Physicians.

"The courses of medical studies provided by the Universities, the qualifications insisted on as requisite for obtaining degrees, and the nature of the proofs by which these qualifications are ascertained.

"The charters of the several Colleges of Physicians, their bye-laws, — particulars of establishment, — extent and general appropriation of funds, — amount of fees levied from each member and licentiate, — and the extent to which the penal and restrictive powers conferred by the several charters are exercised.

"The charters of the several Colleges of Surgeons, their bye-laws, courses of education, qualifications necessary for becoming members and licentiates, — state of funds, — appropriation thereof, — establishment, — fees levied from members and licentiates.

"The Apothecaries' charters, or statutes of incorporation, — their bye-laws, — courses of education, — state of funds, — appropriation thereof, — establishments, and fees of initiation."

Into the particulars embraced by the second of the above mentioned pamphlets, we shall be excused from entering so minutely; indeed, part of the matter discussed in the former constitutes an anticipation of the present, which is principally devoted to a discussion respecting the rights and privileges of the London College.

"In the present tract," says the writer, "I mean to review more closely and circumstantially the department of physic as it exists in England, — to trace the successive enactments by which its legal condition has been regulated, — to show how these several laws have been administered, — to display the effects of their mal-administration, — to manifest their utter unsuitableness (even if faithfully and conscientiously administered) to those revolutions in the state of medical science and practice, and of society, which the lapse of three cen-

turies has effected,—and, finally, to suggest to those who are most aggrieved by the existing evils, those rational and constitutional courses, by which they can bring their peculiar hardships under the cognizance of the Legislature, and thus obtain that redress which a British Senate will never withhold from well-founded complaints, when temperately urged, and respectfully laid before them."

It was in the 10th year of Henry VIII. that the London College of Physicians was incorporated by royal charter; which was confirmed by subsequent acts in the same reign, and also by the 1st Mary. The writer now before us contends, that the obvious intent and meaning of this charter, are, that all men examined and admitted under them, should become members of the bodies corporate; and that, for the varieties of distinctions at present existing, the College can show no authority whatever, save that of their own bye-laws; that, moreover, the general power of framing bye-laws, under any charter, being always given in subserviency to the provisions of the charter itself; such bye-laws can in no wise contravene the charter, without a violation of law.

The pamphlet then goes on to state several examples which it is contended are in direct contravention of the principles and bearings of the charter; and have been framed for the purpose of supporting the dignity of the college, at the expense of infringing upon the rights of individuals. The opinions of Lord Mansfield and of Judge Aston, are then adduced in support of the writer's charge; the former having said in 1768, "I think that every person of proper education, requisite learning, and skill, and possessed of all other due qualifications, is entitled to have a license; and I think that he ought, if he desires it, to be admitted into the College;" and the latter, Judge Aston, having expressed his sentiments on the disputed point in the following words:—

"With all the inspection I have used, from the first charter to Queen Mary, I cannot find any distinction made between the members of this corporation. How it crept in afterwards might be difficult to account for, but the granting temporary and partial licenses will not, in my opinion, impugn the ancient usage; for we see, in different periods, a most manifest alteration, and the words quite different in the manner of admission, until, about a hundred years ago, they arbitrarily reduced it to a certainty, which has since obtained, which, questionless, *owes its foundation to an illegal act of the college itself*, by arrogating a power to admit or refuse, at their own free will. Whereas, they are obliged to admit persons who have proved their abilities, it being for the good of the community."

The more recent transactions, in which Drs. Stanger and Ferris acted conspicuous parts, are afterwards referred to;

and from these statements, the following inferences are drawn:—

"It is quite clear that the College have no disposition to relinquish their usurped power, which they have so long despotically exercised, —and also, that the aggrieved parties can expect no redress by appealing to courts of law. It only remains for them, then, to submit their hardships respectively to the consideration of the Legislature, and solicit whatever relief the wisdom of Parliament may deem them entitled to. On viewing the power and influence of the corporate body whose conduct is arraigned,—the extent of the abuses which prevail in the corporation,—the length of time during which they have obtained,—and the pertinacity with which they are continued,—it must be clear to every sound and reflecting mind, that no alternative remains, but an appeal to the Legislature."

It is further insisted on, that, even had the College always acted in consistency with the letter and spirit of its own enactments, and were they still disposed to interpret and act upon their charter in a just and proper manner, that, "so vast have been the changes which a lapse of three centuries has effected, not only in the state of the science and profession of physic, but also in that of society in general, that there can be little difficulty in demonstrating the utter unsuitableness of the existing laws to the present state of things, or their inadequacy to accomplish those purposes for which they were designed."

Our author proceeds to maintain the actual right of the College, according to its present constitution, to render illegal all *provincial* practice that is conducted without their license, and that thus "a large and respectable body of Physicians, possessing every essential qualification, and chargeable with no wilful fault, are placed in the humiliating situation of being liable to prosecution for a legal misdemeanor, at the suit of any common informer, and have no security against such prosecution, but the insufficiency of the penalties to tempt the informer's cupidity."

The hardships to the well-educated Physician, not a graduate of Oxford or Cambridge, are then detailed, and the whole inquiry wound up by the following inferences and intimations:—

"A parliamentary investigation may possibly bring these evils to light, and thus either disprove the complaints so generally made, or show them to be irremediable. In either case, good must result from inquiry; and as individuals cannot be expected to persevere in a hopeless advocacy of reformation, or to waste exertion in the discussion of grievances, to which the parties affected seem by their supineness to be insensible, they who concur with the author of this essay in believing the grievances to be real and oppressive, and in

deeming some reformation called for, are earnestly requested to avail themselves of any impulse which the foregoing representations may excite; and to arrange some plan of co-operation by which the prevailing sentiments of the Profession, on this highly important question, may be respectfully submitted to the Legislature. On the Licentiates of London, the duty of making the necessary arrangements would appear to devolve; and if such arrangements be founded in the spirit of truth, disinterestedness, and regard for the welfare of the public, the results cannot fail to be satisfactory, whether they establish the reality of evils, and promote their correction, or evince that none exist, save what arises from that imperfection which belongs to all sublunary things."

The following postscript contains matter sufficiently interesting to justify its transcription; its concluding paragraph we ourselves put into italics:—

"P. S.—I was unwilling to extend the present tract, or to distract attention by multiplying the objects demanding it, else I should have noticed a clause in the last Apothecaries' act, which is calculated to effect a very considerable revolution in the line of "general practice" in England.

"In my former tract, I think I succeeded in demonstrating the importance of the "general Practitioner," and showed, pretty clearly, the advantages which resulted to the community, from that silent operation by which the members of the London College of Surgeons supplied this species of Practitioner. With these convictions, I could not, without surprise and concern, read the following clauses of the 55th Geo. III. c. 194, which, if enforced, must effectually preclude all future Surgeons from the practice of pharmacy, and thus unfit them for acting as general Practitioners, unless they also become members of the Apothecaries' company.

"The clauses are as follows: 'XIV. And, to prevent any person or persons from practising as an Apothecary, without being properly qualified to practise as such, be it further enacted, that from and after the 1st day of August 1815, it shall not be lawful for any person or persons (except persons already in practice as such) to practise as an Apothecary in any part of England or Wales, unless he or they shall have been examined by the said court of examiners, or the major part of them, and have received a certificate of his or their being duly qualified,' &c.

"'XV. No person to be admitted to examination, unless he shall have served an apprenticeship to pharmacy of not less than five years,' &c.

"'XX. Penalty for practising without a certificate, £20.; for an assistant, £5.'

"Does not this act give to the Apothecaries an effectual monopoly of the line of general practice, and can future Surgeons practise pharmacy consistently with these legal prohibitions?

"The result may, no doubt, be eventually the same, whether the Surgeons or Apothecaries furnish the general Practitioner; nor does

it much concern the public from what source he emanates, provided he be duly qualified.

" But I own myself at a loss to understand why the mode of superadding physic and surgery to pharmacy is preferred to that by which this country has been so long supplied.

" It is somewhat extraordinary how the London College of Surgeons could have suffered this bill to pass unopposed; for it strikes at the very root of their charter, the great demand of society being not for mere Surgeons, but for Surgeon-Apothecaries.

" *The circumstance affords an additional proof, I think, of the danger of legislating* partially *for the Profession, and of the necessity of determining, by a full and comprehensive survey of the Profession, the relationship which its several departments bear to each other.*"

PART III.

SELECTIONS.

I.

Contribution to the History of Electricity.

(From the Philosophical Magazine.)

Sir, — I was much pleased to meet the other day, in an old Scotch Magazine, with the following interesting and instructive account of some discoveries in electricity, communicated to the celebrated professor Maclaurin, by a friend in Germany, at a time when that science was almost unknown. The circumstances are new to me; and should they be equally so to you, you will probably give them a place in your valuable Magazine.

Edinburgh, Aug. 3, 1821. Your's, C.

When Mr. Maclaurin was professor of natural philosophy at Edinburgh, he taught in private to a select number of his students the higher parts of philosophy, which he could not undertake in his public lectures. The students who attended this second class, were generally persons of better parts, and more inquisitive minds than ordinary; and being, for the most part, of a riper age than many of the first class, he could, with propriety, lay aside the dignity of the professor before them, and assume the more engaging character of the friend; and that they might be induced the more effectually to lay aside all unnecessary restraint, he used to communicate to them any new discoveries which might be made in any

branch of science, and tell them frankly, without any species of reserve, the doubts and difficulties that might occur to him upon any subject. As this was his constant practice, they were not much surprised at his acquainting them one evening, that he had just received a letter from a friend of his in Holland or Germany, (I cannot be positive which of these), containing, as he said, discoveries in natural philosophy, which were of such an extraordinary and whimsical nature, that he could give no manner of credit to them, and that the only conclusion he could draw from the letter of his worthy friend was, that his judgment was certainly failing, and that he had communicated the reveries of an infected imagination as discoveries in science; that, on this account, it had given him great uneasiness, as he supposed he had lost for ever a friend of sound knowledge, from whom he had reaped much solid instruction; and concluded with some moral reflections on the instability of all human attainments, however dazzling it might be, seeing that it might be so suddenly snatched away from them. He then produced the letter, and read it to them.

The principal contents of this letter were, that lately, in the neighbourhood of the place where the writer lived, it had been discovered, that by turning a glass globe quickly round upon its axis, and at the same time rubbing it upon certain substances, it was heard to crackle, and seen to emit sparks of fire; that if any person touched it at that time, he suffered a violent shock, and seemed to have received a violent blow upon the wrists; that if any number of persons were joined together, and one of them touched the globe, all of them were affected with the same violent sensations at the same time: and fire was seen to break forth where they touched each other at the same instant; but if these persons, in place of standing upon the ground, stood upon certain other substances, they felt no shock at all when they touched the ball; but that if another person, standing upon the ground, touched them at the place where they were touched, they felt a sharp prickling pain, and fire was seen to issue from the part; that if one attempted to kiss another, when standing in this manner, they were suddenly repelled from each other by an irresistible power which forced them asunder, and fire was seen to pass between the two; with many other things to the same purpose.

After having read the letter, all the students agreed that the phænomena appeared to them so very ridiculous, that they could not be induced to pay any regard to them. However, Mr. Maclaurin added, that although he was firmly persuaded that all these things were chimeras formed by the

imagination, instead of facts, as his friend affirmed; yet that, as the phænomena of nature were sometimes very extraordinary, and as he had, on every former occasion, found his friend a very sober, sensible man, not ready to be misled by false appearances, he would not reject, as a falsehood, any thing that he had affirmed, till he had given it a fair trial; and as he had described, in a very particular manner, the apparatus necessary for producing these wonderful effects, he would cause one of the machines to be made in a short time, and repeat the experiment which he described. This he accordingly did. But how great was his surprise to find that, upon trial, all the experiments turned out exactly as they had been described! He immediately called together his students; reminded them of his former incredulity—repeated the experiments before them, and showed them how much he had been mistaken, and what injury he had done his worthy friend; with the utmost ingenuousness, acknowledged his error; and warned all those who heard him to profit by this lesson which his example afforded them, and never to reckon any thing which was delivered, as a new discovery, impossible, however improbable it might appear, till they had given it the fairest trial; to preserve their minds ever open to conviction; and, without the smallest hesitation, readily to give up any error into which at any time they might accidentally have fallen; seeing that human reason is but weak and fallible at the best, and ought ever to be corrected by experience and accurate observation.

But he did not rest here. He went to his public class, which had, till that time, heard nothing of it. He told these younger students the discoveries that his friend had communicated to him; of the manner in which he had talked of him to his private class; of the experiments which he had made; of the injustice that he had done his friend; and of the error which he himself had fallen into about these experiments; talked of all these before them without the smallest palliation or glossing of any kind to conceal his own mistake, and inculcated to them the same lesson that he had given his former class.

II.

Observations on Sir Everard Home's *Paper on the Black Rete Mucosum of the Negro.*

Sir Everard Home, it appears, has delivered a lecture to the Royal Society, in which he endeavours to prove, by experiment, that the rete mucosum of Negroes is a provision

of nature against the scorching effects of the sun's rays. This, I presume, is the Croonian Lecture, which is a lecture delivered annually to the Royal Society, in pursuance of the will of a Dr. Croone, who left a sum of money to that Society, upon condition that a yearly lecture should be delivered upon muscular motion. Of late years, when that subject began to be exhausted, the lecturer has very properly been allowed to choose any anatomical subject. The task has almost always fallen upon Sir Everard Home, one of the few remaining *stars* of the English Royal Society. As it is well known that he delivers these lectures chiefly to keep up the credit of the Society, it would be hardly fair to criticise them with much severity.

Nevertheless, his ideas are so obviously wrong, and his experiments so completely inadequate, that they disgrace the Transactions of the Royal Society, and will be greatly ridiculed at Paris, and, indeed, everywhere by enlightened men. Professor Roux came over to London to visit the English schools; and when he returned home, he ridiculed certain things, in his public lectures, most unmercifully. But he never had so fair a theme as this.

First: As a provision against the rays of the sun, black is the very worst colour that could possibly be chosen. What should we think of the man who, to defend his bare poll against the scorching rays of the sun, put on a black hat instead of a white one? Unless nature were an idiot, she certainly would have preferred white. Sir Everard *proves* his point in the most absurd possible manner. He interposes a piece of black crape between the skin and the concentrated rays of the sun; and then, because the ardour of the rays is blunted, he maintains that the rete mucosum of Negroes is for this purpose! The texture of the crape is the true defence, and I will never believe but that white crape would answer much better.

Secondly: Why should nature be so partial to black men? The ancient Egyptians, the ancient Hindoos, and Charibbs, all lived within the tropics; the former were white, unless in those parts exposed to the sun; the latter were red. At this day the Coquin Chinese are yellow, and yet they reside in a very hot climate. It is true, the banks of the Senegal and Gambia are hotter still: but there are black men in New Holland, and very dark-coloured skins near the north pole.

Thirdly: There is no such thing as a pigment in the rete mucosum at all. In the eye, indeed, there is a pigment. There was once a Frenchman who pretended to demonstrate one in Edinburgh; but neither Professor Monro, nor any person could discover it, but only the Frenchman himself. It is

quite impossible to separate the rete mucosum from the cutis vera or under skin, otherwise than by an arbitrary separation. The colour of the skin depends not upon any pigment, but upon its texture; the texture of that of the Negro is thicker, but coarser wove. This would be a better preventive against the sun's rays than any pigment. But the truth is, the whole idea is ridiculous; and it was decided as long ago as the days of Buffon, that it is the obtuseness of the nervous system of the Negro which renders him callous to the most scorching heat.

The College of Surgeons boast that they never read, but make experiments only; and it may be indeed said that they know how to use their hands better than their heads. There is such a thing as drawing conclusions from experiments which the experiments do not warrant; and the above is an instance of how little use men's hands are, unless there be a head to guide them, and reason upon their experiments.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

PATHOLOGY (INCLUDING MORBID ANATOMY) AND PRACTICE OF MEDICINE.

I. *Case of Disease of the Right Vas Deferens and Vesiculæ Seminales.*—A youth, aged fifteen, whose history is detailed by Dr. Troussel Delvincourt*, had an inflammatory swelling of the left testicle, principally seated in the epididymis. It had, within two years, several times recurred; and was followed by formation of a chronic abscess, which, opening spontaneously, terminated in a small fistula on the left of the scrotum. The testicle resumed its natural volume, but slight enlargement of the epididymis remained. This did not interfere with the patient's occupations and amusements; but he complained of pain in the testicle after horse exercise—a circumstance which preyed on his mind, and increased the depression of his spirits.

In his nineteenth year, pain and enlargement were experienced in the right groin; and, on examination, thickening of the spermatic chord from the testicle to the abdominal ring was discovered. The testicle and epididymis were not implicated. Several remedies were unavailingly prescribed.

The gradual decline of the system soon afterwards excited

* Nouveau Journal de Médecine, Octobre, 1820.

attention. Daily paroxysm of fever, varying in its period, severity, and duration; languor of all the functions. The patient, listless and dejected, spoke frequently of his approaching end; and, though taking little exercise, slept unusually long. Baths, antispasmodics, asses' milk, and horse exercise, were prescribed, without general amendment. The swelling in the right groin was now hard, indolent, cylindrical, even, continuous; followed the direction of the chord; entered the abdomen with the spermatic vessels; and was felt, like an indurated chord, proceeding towards the bladder. Hence the swelling could only be considered as a disease of the vas deferens, and probably extended to the right vesicula seminalis.

Reflection obviously pointed out a scrofulous taint in the patient, as the source of the local disease; and a survey of his tall and thin figure, narrow chest, long neck, and peculiar physiognomy, farther announced the commencement of pulmonary phthisis.

Baths and emollient applications effected some diminution of the swelling of the right chord; but the attention was afterwards principally excited to the general health. The fever increased; symptoms of cerebral congestion, delirium, all the phenomena constituting cerebral fever, ensued. The left arm became paralyzed; then the corresponding leg and thigh. Suddenly there came on general and very violent convulsions, particularly affecting the left extremities. The facial muscles were considerably contracted, frothy saliva issued from the mouth, and the aspect of the patient was horrible. This state lasted an hour. Respiration then became rattling; and, after thirty-six hours' struggle, the patient sank. It is remarkable, that after the convulsions the movement of the left side of the body was restored; and the right side became completely paralyzed, and continued so till death.

Dissection, twenty-six Hours after Death.—Cranium. Considerable ecchymosis on the summit of the head, between the left parietal bone and pericranium; all the convolutions of the brain evidently flattened; several parts of the arachnoid thickened, and whitish in colour; pia mater of left hemisphere extensively reddened, principally between the cerebral convolutions; six or seven ounces of serum in the ventricles, particularly in the right, in the basis cranii, and spinal canal; substance of the brain and cerebellum unusually soft; blood of the sinuses of the dura mater containing numerous bubbles of air.—*Thorax.* Right lung universally adherent; left not so; both filled, particularly at their summit, with miliary tubercles; left exhibiting, at its superior part, a large cavity, consequent on destruction of the pulmonary structure by

suppuration of the tubercles. The heart soft, rather large; its right cavities considerably dilated, with extenuation of their parietes. — *Abdomen.* All the viscera remarkably soft and flaccid. Kidneys large, slate-coloured; their cavities dilated. — *Genital Organs.* Right testicle and epididymis sound; but the whole vas deferens, forming a cylinder nearly an inch in diameter, soft, even, commencing at the extremity of the epididymis, and terminating at the right vesicula seminalis; its volume smallest at both extremities. The external surface of the dilated vessel smooth and regular; the internal rugous, unequal. The parietes thinner than usual, not exhibiting the almost cartilaginous hardness which they possess in the healthy state; the oblong cavity, thus formed, containing a yellow, thick, pulpy substance, thinnest at the centre, and accurately resembling that of softened tubercles. All the circumjacent parts healthy. The vesiculæ seminales natural in volume and appearance; containing the same yellow matter as the vessel, but less thick. The left vas deferens sound; but filled, near its union with the epididymis, with the like substance. Left epididymis, larger than the right, presenting traces of suppuration; at this the fistulous opening in the left of the scrotum terminated. Left testicle quite healthy.

Reflections. — Diseases of the internal organs of generation being little known, it may be interesting to connect with the remarkable fact just recorded, all that authors have hitherto advanced on the same subject, and thus accumulate materials for the history of these lesions.

Morgagni, in his great work, mentions several cases of scirrhous induration, contraction, or thickening of the vasa deferentia and vesiculæ seminales; and one wherein calculous concretions were found in the former. As the work is so generally known and accessible, we need only refer the reader to it*.

Another publication, much more rare, contains the dissection of a man, in one of whose vesiculæ seminales a concretion, of the form and volume of a pea, was discovered. It is written by Valentini, and entitled, "Calculus in Vesicula Seminali†."

"An aged man, twice married, although by no means deficient in energy, could not ejaculate. He died of some acute disease; and, on dissection, the verumontanum was found indurated, and of the size of a small nut. The semen

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* De Sedibus et Causis Morborum, epist. xlii. art. 37; epist. xliv. art. 7; epist. xlvi. art. 5 and 7.

† Ephemerid. Curios. Naturæ, decad. 2, an. vi. obs. 68.

was as though petrified; and the ejaculatory vessels filled with very hard round stones, as large as peas*."

In forty bodies examined by M. Littre, the prostate gland and vesiculæ seminales were found diseased†; and on dissection of a man, who externally exhibited no morbid appearance, the vesiculæ seminales presented a cartilage-like induration‡.

Schenk mentions having found in a monk, destroyed by pleurisy and putrid fever, the testicles and spermatic vessels in a state of almost perfect atrophy. This condition he attributes to the vow of chastity, which the deceased had for many years rigidly observed‖.

By Dr. Baillie§ it is remarked, that "the vesiculæ seminales are affected with scrofula. I recollect to have seen one of the vesiculæ seminales filled with true scrofulous matter." And again: "Small stones have also been seen in the vesiculæ seminales; but they have not fallen under my observation, and they are of very rare occurrence."

Portal merely says: "Enlargement of the vesiculæ seminales, of the vasa deferentia, and testicles, are a frequent effect of the suppression of venereal discharges from the urethra¶."

II. *Case of rapidly fatal Hæmorrhage in the Abdomen, consequent on Suppressed Menstruation, and without Rupture.*—The following are the outlines of this very curious case, as communicated by Dr. Neumann of Berlin, in a late number of a German Journal**.

An apparently robust and well-constituted woman, aged thirty-five, regular in her menstrual discharges, which were always copious,—long married, but without children,—was, on the 23d of February, in the commencement of the period of menstruation, exposed to cold and damp. About five o'clock that evening the menstruation ceased, and violent pain in the abdomen was experienced. The patient went immediately to bed; but the pain increased, accompanied with vomiting. Her sufferings continued during the night; and at eight o'clock next morning she was conveyed to the Charity.

She was then as pale as death, and cold; pulse scarcely perceptible; tongue and lips pale yellow; eyes dim; nose

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* Encyclopéd. Méth. Médecine, tom. xi.; Anatomie Pathologique, p. 475.

† Same work and article. ‡ Same, p. 513.

‖ Observationes Medicæ, obs. 27.

§ Morbid Anatomy, pp. 323—325.

¶ Cours d'Anatomie Médicale, tom. v. p. 447.

** Journal der Practischen Heilkunde von Hufeland, Feb. 1821.

sharp; temples sunk in: respiration anxious. The whole abdomen was greatly distended, and excessively painful on the slightest touch; the whole surface of the body hot. Feculent matter was vomited up; the stools suppressed. No hernia existed. The patient was extremely anxious and dejected; and could with difficulty utter a few words.

The leading symptoms seemed to indicate highly dangerous inflammation of the intestines; and on this principle the plan of treatment was directed. Venesection and application of leeches to the perinæum were the principal remedies. The woman died at noon.

Dissection proved the diagnosis to have been incorrect. Upon incision of the peritonæum, more than three pounds of bloody serum escaped; and two pounds nine ounces of coagulum were extravasated in the pelvis. The liver and spleen were shrunk and pale; the large blood-vessels empty. There was no inflammation. Death had evidently resulted from internal hæmorrhage.

The question, then, was to discover the source of the bleeding; but the only thing certain was, that it had proceeded from no large vessel. The point whence it had issued was either the diaphragm, or, more probably, the right ovarium. On both surfaces of the former, immediately above the convex portion of the liver, and in the thorax, below the right lung, there was a place completely red, and crowded with blood-vessels; and the right ovarium was thoroughly converted into a mass resembling coagulated blood. On its inferior surface a small hydatid was discovered.

The uterus was, as it always is at the menstrual period, enlarged; both the orifices of the Fallopian tubes dilated; its cavity containing a small quantity of mucus. Numerous hydatids in the left ovarium.

Considerable congestion of the diaphragm and ovarium had, doubtless, resulted from the sudden suppression of the uterine discharge; and from one of these points an escape of blood had gradually taken place. This, collecting in the peritonæum, had, from the consequent distention, caused violent pain, induced apparent symptoms of inflammation, and led to a rapid and inevitable death.

SURGERY.

III. *Case of Carotid Aneurism cured by Ligature.*—Amid the great mass of foreign medical literature which is constantly passing under our review, we have not till lately met with any well-authenticated case of aneurism of the carotid artery successfully treated by ligature, on the continent. Dr. Holscher, Surgeon at the Court of Hanover, has, it

seems, practised*, and succeeded in, this daring operation†. A brief recital of its circumstances will be, doubtless, read with interest by the British Practitioner.

The subject of the case, a German printer, aged twenty-three, previously healthy, first perceived an indolent tumour on the right side of the neck, in June 1819. Its cause was unknown; its increase, in six weeks, very rapid. On September 14th, he consulted Dr. Holscher. He was a man of middle stature, long neck, brown hair, and clear complexion. He complained of giddiness and headache. The tumour was found to be an aneurism, situated about one inch above the division of the right carotid artery; had the volume of a pullet's egg; elevated, about four lines, the sterno-cleido-mastoideus, omo-hyoideus, and integuments, which were healthy, and exhibited pulsations, visible at a great distance, and synchronous with those of the left carotid. Fluctuation was more perceptible at the centre than the circumference; but the finger, on whatever point applied, was raised with force. Regular and continued pressure caused it gradually and completely to disappear; but, the pressure removed, it resumed its original volume. On compressing the artery between the tumour and the clavicle, the aneurism and its pulsations were diminished in proportion to the degree of pressure; but it was impossible, by this mean, completely to reduce either. Neither deglutition nor respiration was impeded by it.

On the 18th and 21st, there appears to be no essential alteration; but, on the 25th, the tumour had increased in volume, and become painful on pressure. Hence the patient expressed a wish to have the operation, which had previously been determined on, performed; and it took place on the afternoon of the 27th. It was executed in the usual way. A slight interruption was caused by the faintness of the patient. Two small arteries were tied; and one vein, which bled profusely, compressed, in getting down to the artery. The internal jugular vein was not visible; and, consequently, did not impede the operation. Some difficulty was encountered in separating the eighth nerve from the artery. On tightening the ligature, which appears to have been single, no pain in

* Journal Complementaire du Dictionnaire des Sciences Médicales. — *Sept.* 1820.

† Professor Walther, of Bonn, is the only one, we are informed, who has practised this operation in Germany, before Dr. Holscher; but of his case we have hitherto met with no detail. Whether it has ever yet been performed in France, we do not at this moment recollect. Our impression is, that no operation of the kind is mentioned in Breschet's translation of Mr. Hodgson's work; but we have not the opportunity of referring to it.

the head was experienced; the aneurismal tumour instantly subsided; and no pulsation could be felt either in it or the external carotid. The wound was drawn together by adhesive straps.

Eight o'clock, P. M. Patient calm and cheerful; no pain; pulse moderate; skin hot; sense of stupor in the whole right side of the head.

Sept. 28th. Eight o'clock, A. M. Has slept several hours; towards morning, fever and thirst; sense of stupor much changed; aneurismal sac small; no pulsation in it, or the temporal artery; pulse 90, full and hard; slight perspiration; tongue clean, but dry; urgent thirst; much pain in deglutition. *Diluents.* —— Eight, P. M. Pulse 90, soft; tongue moist; less pain in swallowing; no stool for two days. *A spoonful of castor oil.*

29th. Nine, A. M. Night disturbed; much heat and thirst; towards morning, slept well for two hours, after having a stool; pulse 90, soft; gentle perspiration; tongue white, but moist; no pain in deglutition, nor stupor; carotid beating strongly below the ligature; dressings soaked with the discharge. —— Eight, P. M. Same state; slept several hours in the afternoon.

30th. Eight, A. M. One evacuation in the evening; six hours sleep; slight perspiration; pulse soft*; tongue loaded, but moist; no pulsation in the aneurismal sac, or temporal artery; dressings soaked with bloody pus; removed, and plaster taken off; the upper part of the wound quite healed.

Oct. 1st. Eight, A. M. A good night; pulse 72; carotid no longer beats with force below the ligature, and the column of blood not seeming to rise so high in the vessel; tongue moist, and more clean; pus healthier; no evacuation. *One spoonful of castor oil.* —— Six, P. M. Operated twice.

2d. Eight, A. M. Night good; pulse 70; tongue clean and moist; gentle perspiration; wound yields good matter, and gradually cicatrizes from above downward; one of the small ligatures detached. —— Seven, P. M. Appetite good; pulse 68.

3d. No change; second ligature detached. — 5th. Wound only four lines long; feeble pulsation in the temporal artery; aneurismal sac thicker than before; slight fluctuation in it, but no pulsation; pulse 60. — 6th. Pulse 58; temporal artery beats with more force. — 7th. Fluctuation more perceptible in the sac. — 9th. Suppuration nearly ceased; ate a little meat with appetite. — 11th. Pulse 80; sac diminished; fluctuation less sensible; ligature detached. — 12th. Patient

* The number of the pulse on this day is reported to be 24 — obviously an error. EDITOR.

quitted his bed for a few hours. — 20th. Wound cicatrized, except a small fistulous orifice, where the ligature passed out; patient, for the first time, went out; nothing remaining of the aneurism but a tubercle of the volume of a nut.

Nov. 6th. A small abscess in the inferior part of the wound; poulticed; burst on the 9th; all completely cicatrized on the 4th of December, when the patient resumed his occupation; no longer complaining of the headache and vertigo, which had teazed him previously to the operation.

ANIMAL CHEMISTRY.

IV. *Chemical Examination of the Human Teeth at different Ages.* — The chemical composition of the teeth of man, and of the inferior animals, has long been made known by the labours of Fourcroy, Vauquelin, Berzelius, and Pepys; but the comparative examination of these substances, at the different periods of life, has not hitherto been undertaken.

M. Lassaigne, having procured a collection of human teeth, has investigated the subject, and published the results*. The process which he has employed in submitting to analysis the substances marked in the following table, is very simple. It consists in calcining to a white heat, in a crucible of platina, the substance; weighing it after the operation, to ascertain the loss consequent on the burning of the animal matter; dissolving the residue of the calcination in diluted nitric acid; precipitating the phosphate of lime from the solution by ammonia, and afterwards pouring a solution of subcarbonate of soda on the super-natant liquid, to precipitate the carbonate of lime.

Table exhibiting the Results obtained from Chemical Analysis of the Human Teeth at different Ages; and of some of their Appendages.

OBJECTS SUBMITTED TO ANALYSIS.	Animal Matter.	Phosphate of Lime.	Carbonate of Lime.
Teeth of a man aged 81, contain in 100 parts	33	66	1
Teeth of an adult	29	61	10
Teeth of a child, aged 6 years	28,5	60	11,5
Teeth of a child, aged 2 (first dentition)	23	67	10
Teeth of a child, aged 2 (second ditto).....	17,5	65	17,5
Teeth of a child, aged 1 day	35	51	14
Teeth of an Egyptian mummy	29	55,5	15,5
Enamel of the human teeth	20	72	8
Gingival cartilage of a child, aged 1 day	86,7	11,3	2
Dental pulp of a child, aged 1 day	77	23	0
Dental sac	57	37	6
Rudiments of the teeth	40,5	38	21,5

* Journal de Pharmacie. Jan. 1821.

PHARMACY.

V. *New Extract of Opium**.—From some experiments upon *narcotine*, (one of the immediate principles of opium) which have been instituted by Dr. Magendie, this celebrated physiologist thinks it probable, that the very variable effects of opium are owing to the presence of the opposite principles, which enter into its composition. This opinion acquires greater probability, from the circumstance that persons, who take morphium, experience none of those exciting properties which the aqueous extract of the shops, containing both morphium and narcotine, produces on them.

Hence it appears that, of all the processes employed for the preparation of extract of opium, the best is that by which the separation of the narcotine is effected. The method which, with this view, has been proposed by M. Robiquet, is strongly recommended to the notice of Apothecaries; for it very well accomplishes the proposed object, and the extract which it furnishes, has already been productive of excellent effects. It consists in macerating, in cold water, the opium cut into small pieces, as in making the aqueous extract. The liquid, when filtered, is evaporated to the consistence of a thick syrup; and the extract repeatedly agitated with ether in a suitable vessel. The ethereal tincture is then decanted, and submitted to distillation, in order to separate the ether. The operation is repeated as long as crystals of narcotine resulting from it, are obtained. When the ether no longer acts, the solution of opium is evaporated, and the extract prepared. As the same ether may again be employed in the preparation of extract, the operation is not so expensive as it might, at first sight, appear.

The ingenious process of M. Robiquet, for the preparation of this extract, is much superior to those proposed by Baumé and Nermann; in the former of which the opium is submitted to a six months' ebullition, in the latter, to an eight months' fermentation.

Researches on a Disease, hitherto little known, which has received the Name of Softening of the Brain. By L. Rostan, M. D.†

[The following papers were communicated by Dr. Palmer, for insertion among the articles of Original Correspondence; but, having arrived a day too late for that department of the Repository, and being, in fact, Foreign matter, it has been thought proper to introduce them here, rather than wait for the next Number.]

Chapter IV. *Duration of the Disease.*—Nothing is

* Journal de Pharmacie, May, 1821.

† Continued from Vol. XV. p. 129.

more difficult than to fix the duration of diseases. Their invasion is frequently obscure, and termination imperceptible and ill-determined. One cannot precisely ascertain their commencement, or their close. The fatal issue of that under consideration, unfortunately leaves no doubt as to the period of its occurrence. It is not so with the invasion. Ought it to be dated from the moment at which paralysis strikes the patient with most violence; or should we refer it to that period at which the first attacks of the affection are manifested*? This distinction is highly important with regard to the diagnosis; the duration of the disease serving, in concurrence with the other phenomena peculiar to it, to distinguish it from numerous affections with which it might be confounded. However this be, we shall proceed to examine the duration of the precursory phenomena, and that of the disease when it has become strongly marked.

The duration of the precursory phenomena (first stage) varies from several days to months, and even years. This duration will be governed by the individual constitution; by the intensity and continuance of the cause; and the diseases previously experienced. If the person, attacked by cerebral softening, have been before stricken with apoplexy, and this have been imperfectly resolved, the precursory phenomena may continue several years. The same may be said of the insane, in whom these signs may manifest themselves early, and last very long. If an individual be under the influence of a violent moral affection, the precursory signs may offer only a very short duration, so as to induce the supposition that they have not been experienced. It may even happen that the patient, completely absorbed by his besetting sorrow, neglects to complain of headach or numbness of the limbs; and the symptoms of the disease thus elude the observation of his friends. Hence the difficulty of diagnosis is singularly aggravated.

When the disease is once developed,—from the moment of the paralytic seizure till death, a space of time may elapse, varying from two or three days to as many months. Its duration is, however, commonly that of acute diseases. Like peripneumony, it may terminate on the fourth, fifth, fifteenth and twentieth day. When it exceeds this term, the diagnosis is rendered more obscure. The disease may also pass on to the chronic state. Many circumstances, such as those above indicated, may influence its duration: the degree of action of the exciting causes; the constitution and health of

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* I incline to this opinion; although there is a commencement of alteration, from the moment at which the precursory signs show themselves.

the individual; but, especially, the extent, depth, and seat of the morbid change; and, lastly, the treatment. I have seen the softening occupy an entire lobe; and the patient destroyed in two days. When the lesion is superficial, it may go on very long. But this is not the case when it extends to the medullary substance. A slight alteration in this substance will speedily cause death. We see that the duration of the disease may serve to fix the diagnosis, so as to enable us to distinguish whether the morbid change be superficial or deep-seated — limited or extensive.

Respecting the influence of treatment on the duration of the disease, I have nothing but conjectures to advance. This affection terminating fatally, it is difficult to decide whether the treatment have hurried on, or protracted, the issue. Doubtless, however, it may exert some influence on the duration. If the nature of the lesion be, for instance, inflammatory, blood-letting, and revulsives may retard its progress; but when the disease is of a contrary nature, they will only accelerate its march.

Chapter V. *Frequency of the Disease.* — Softening of the brain is by no means a rare affection. From my own observation, I believe it to be the most frequent of all the cerebral lesions. At *la Salpêtrière*, at least, it is more common than sanguineous apoplexy. If this be the case, why, it may be inquired, has the disease remained so long mistaken? The morbid change, we may reply, sometimes occupies so small a space that even those to whom it is pointed out cannot discriminate it; for this purpose much patience, attention, and observation of it in its most decided forms, is necessary; and frequently the natural colour of the part is not changed. If to this it be added, that the ventricles often contain much serum, the facility with which it may be mistaken for serous apoplexy will be at once obvious; and in those cases where no serum has been discovered, it is more convenient to give the appellation of nervous apoplexy, than incur trouble in searching for an alteration of this kind. I can only assert, that since my acquaintance with this lesion, I have never once met with serous or nervous apoplexy. I have, however, recently seen a woman, who presented all the signs of cerebral disease, and in whose brain no alteration was discovered. But the inspection of the spinal canal could not be accomplished: hence the case is utterly undecisive.

Chapter VI. *Morbid Alterations.* — The softening varies according to the consistence of the cerebral substance, its colour, seat, extent, and number of the alterations. After having removed the calvaria, and incised the dura mater,

the subjacent membranes are found loaded with serum. This, commonly contained between the pia mater and arachnoid, presents a gelatinous aspect; whereby many observers, some even of modern times, have been led into error, mistaking it for real coagulated gelatine. But such serum, although usually, does not invariably exist. In these rarer cases, the membranes are dry, and without perceptible change of colour. Sometimes they are red and vascular; in the cases I have detailed, they were seldom found in a state of suppuration. Yet this may occur, in the same way as the pleura is seen covered by false membrane, when the pulmonary structure is diseased. Partial adhesion of the membranes to the softened portion of brain is occasionally met with, as in the cases recorded.

The degree of consistence of the brain is a quality extremely difficult of appreciation, at least in appearance. Yet when we consider that the natural compactness of the cerebral substance is generally well known to the experienced Anatomist, — that the influence exercised upon it by age and temperament are also understood, — and that the changes effected by such causes are always general, and do not alter the colour of the encephalon, — one may surely distinguish from these modifications a partial softening, more or less extensive, almost constantly accompanied by change of colour in the altered portion, or in that adjacent to it.

The morbid consistence of the brain varies from that of liquid jelly to a degree of firmness nearly natural. The medium between the two extremes is most frequent. When the softening is considerable, it is very difficult of appreciation — at least if, as often happens, there exist no change of colour.

The colour of the softened portion may be yellowish, greenish, pink, red, brown, mulberry, or dead white. Several of these shades may exist together in the same individual. The greenish yellow colour is ordinarily found in cases where the softening is consequent on an old attack of apoplexy; and the centre of the lesion then exhibits this colour. The pink hue, with more or less of red, is observed in cases where the disease is primitive; and most commonly shows itself towards the circumference. The mulberry colour is not uncommon; it gives to the lesion the aspect of a scorbutic spot, or of a real ecchymosis. This must be an imperfect hæmorrhagic effort. I have never met with it in a simple state. The softened portion is frequently of a milk-white colour. The whiteness of the medullary substance seems to have acquired increased splendour. This occurrence is not rare. Such are the colours I have most fre-

quently observed: all the intermediate shades may be conceived to exist.

The softening may be superficial or deep-seated. On removing the membranes, if the lesion be superficial, (which commonly happens, for, when deep-seated, it often extends to the exterior,) the convolutions are found disfigured, as it were bloated, in a circumscribed part, or in the whole of one hemisphere, rarely in both; but always in an unequal manner. At other times, the change of consistence is announced by the alteration of colour of the cortical substance. This, instead of being of a yellowish grey, is in some points pink, and almost always half only of the thickness of the substance. Much experience is required to distinguish these two shades of the cortical substance. On touching such parts, we find them evidently softer than those which have retained their original hue and figure. If we attempt to cut them with the scalpel, the angles formed by the segments are obtuse, rounded, and unequal: they have not the polish of those presented on slicing the healthy substance—a comparison which may always be made on the same brain, as the softening is never general. On passing the handle of the scalpel, or any obtuse body, over the altered portion, part of the substance is commonly removed: this never takes place when the consistence is natural. The superficial lesion may exhibit a greenish yellow colour at the same time with the other. It follows the convolutions, dips with them in their windings, and may extend beyond the cortical, or even the surface of the medullary substance. Its most common superficial extent is a circumference of two or three inches; but it may sometimes occupy half, or even the whole of an hemisphere.

But the morbid alteration is sometimes more deeply situated. Every part of the viscus is exposed to it. The corpora striata and optic thalami are most frequently affected; and after them, the central part of the hemispheres. I have seen but one instance of it in the septum lucidum; but Dr. Abercrombie seems repeatedly to have met with it there. Lastly, the cerebellum and cerebral crura are not exempt from it. I have never observed it in the spinal chord; but am persuaded, that many cases of supposed nervous paraplegia owe their existence to this lesion.

At these different depths, the softening may vary in extent. It may exhibit the volume of a kidney bean, (when less, it is not easily distinguished,) or invade great portion of the cerebral lobe. The middle condition is most common. The limits of the softening are far from being precisely marked; the centre being invariably softer than the circumference,

and the latter resuming its natural consistence in a gradual and irregular manner.

In most cases the alteration is solitary; both hemispheres are rarely, though sometimes diseased. Then, one is almost always more so than the other, and seems to have been first affected. The same hemisphere may be softened, in different degrees, in several points. Lastly, it happens, as before mentioned, that there may exist a number of real violet ecchymoses, resembling scorbutic spots, and diffused at various depths in the cerebral substance. The softening may be combined with sanguineous extravasation. In many cases, it forms to the latter a kind of envelope; and sometimes, though seldom, it exists in a remote part. It also may accompany cancer of the brain, and all the organic derangements of this viscus.

The ventricles frequently contain a considerable quantity of serum, which sometimes serves to divert the attention of the observer, and cause the disease to be mistaken for hydrocephalus, or serous apoplexy.

The arteries of the brain are usually ossified when this organ is softened.

Chapter VII. *Nature of the Disease.*—To restrain the sallies of imagination in penetrating the nature of diseases, is exceedingly difficult. Conjectures are too frequently taken for realities. In investigating the nature of the disease under consideration, we merely wish to inquire in what class it ought to be arranged; and whether it be a phlegmasia, or a disease of peculiar character. In this attempt, we shall adhere to the rigid observation of facts.

Inflammation is announced by *tumour*, *redness*, *heat*, and *pain* of the part affected. This definition, although in some cases inexact, it will be better, with the view of avoiding more serious errors, to admit. Some of these phenomena may, indeed, be wanting, and yet the inflammation actually exist; but these exceptions have sometimes been carried so far, that the presence of phlegmasia has been acknowledged where none of the characteristic signs have shown themselves. Many reasons induce me to believe, that cerebral softening is the effect of inflammation. 1. In some cases, there exists a very decided *pink colour*, which can only be the result of the inflammatory process. This colour, it may be objected, being seated only round the circumference of the softening, is simply consecutive to the lesion; but such objection is, perhaps, somewhat overstrained. 2. Fixed *headach* frequently precedes the disease. 3. *Tumefaction* can scarcely occur in the interior of the cranium: yet the convolutions are occasionally thickened; and the comatose symptoms are,

doubtless, owing as much to the compression which results from this increase of volume, as to the local alteration of the encephalon. 4. The existence of *heat* it is impossible to ascertain, but the general febrile state may induce a suspicion of it; for very often the pulse is full, strong, and frequent, the skin warm, and the tongue dry. 5. The softening, in many instances, manifests itself round a sanguineous extravasation, and is consecutive to it. In this case, the softening may probably be referred to the inflammatory process which nature institutes around organic lesions of every kind, when they have attained a certain stage; or that which it produces around foreign substances, with a view of favouring their expulsion. Lastly, the obscurity in which the history of encephalitis is enveloped, and our ignorance respecting the organic alteration to which it gives rise, may, at least, induce the suspicion that the softening is the result of it. In the article upon diagnosis, it will be seen that many of the symptoms indicate the inflammatory process.

Yet all the reasons just given in favour of the inflammatory nature of cerebral softening will not justify the conclusion, that it is invariably the effect of inflammation. In the first place, because, in most instances, none of the signs characteristic of this state exist. The diminution of contractility and sensibility, the paralysis, stupor, and impaired intelligence, are symptoms much more frequent than the opposite phenomena, — as contraction, convulsions, and pains of the limbs, and delirium. The latter, doubtless, announce an exaltation in the vital energies of the brain; but the first and most common indicate an alteration of an opposite nature. Frequently there exist neither headach, change of colour in the cerebral substance, tumefaction, nor febrile symptoms. It is then impossible to admit the presence of a phlegmasia. Lastly, this alteration takes place in aged persons, and under circumstances entirely opposite to those which give rise to inflammation. We may also add, that the softening of the structure, which it invades, is not a necessary effect of inflammation. Hence we are obliged to admit an inflammatory and a non-inflammatory softening — the latter consisting in a peculiar degeneration, which possesses its own signs and characters.

Contribution to the Diagnosis of Inflammation of the Heart.

By Dr. Neumann, of Berlin.

[Communicated by Dr. Palmer.]

It has been mentioned by a celebrated Physician, that three cases of exquisitely marked carditis had occurred to

him in the course of a very long and extensive practice. Hence it must appear extraordinary, that within one week three cases of evident inflammation of the heart should have happened in the Royal Charity Hospital,—and indeed a fourth, in which all the phenomena may with probability be referred to the same cause.

The first case was not noted; for we had no opportunity of observing its phenomena. The dead body was brought into the hospital on the 3d of November; and on dissection the following appearances were discovered:—

The right lung was completely changed into a firm liver-like mass; the left exhibited the termination of the inflammatory process in suppuration. In the inferior lobe, matter was *perfectly* formed. In proceeding upward, the exudation of pus decreased; and at its summit, the lung was yet in a state of phlegmonous inflammation.

The pericardium was externally of a deep red colour: on opening it, a quantity of yellowish fluid escaped; and the whole external surface of the heart was covered with coagulated lymph, which had formed an externally very rugged and shaggy membrane. A similar stratum of coagulated lymphatic membrane lined the whole internal surface of the pericardium. The right ventricle was interiorly of a deep red colour, as it were in a state of phlegmonous inflammation.

Respecting this patient we learnt nothing, farther than that he had been a journeyman mason, aged forty-nine; and that, during his last illness, he had several times been let blood.

In the following case, we had a better opportunity of observing the mode of development of the phenomena. A well-formed and robust journeyman tailor, aged twenty-six, who had always enjoyed tolerable health, was attacked, during the summer, with slight cough. This had already continued several months, without attracting particular attention. On the 5th of November, this man was taken suddenly ill; and on the 10th, came into the Charity. He had an acute fixed pain in the left side of the breast; dry but not very frequent cough, which deep inspiration immediately re-excited, with aggravation of the pain; hurried respiration; hard and frequent pulse; sluggish bowels; moist and clean tongue; thirst considerable; skin tolerably warm, but without perspiration. Blood-letting was immediately prescribed, and nitre with Glauber's salt in solution.

On the 11th, the patient found himself altogether better; respiration, especially, was more free, and slight expectoration had commenced; the pulse yet continued frequent, (94

strokes in a minute), but weaker; and, on deep inspiration, the acute pain in the left side, and cough, were by no means removed. The medicines were continued.

On the 12th, the cough was increased; the expectoration very inconsiderable; the temperature of the skin was natural; the patient generally very tranquil: yet was the respiration, as well as the pulse, still somewhat accelerated; pain was no longer felt on inspiration. Sulphuret of antimony, with small doses of opium, (one-eighth of a grain every three hours), was administered; and a pectoral infusion.

On the 13th, the patient was more tranquil; the respiration more free; but the pulse hard, full, and rather frequent. Expectoration had commenced in a trifling degree, and was of a frothy character. The patient had yet no appetite; but the bowels were regular.

No one considered his disease to be of a very serious nature. He sat up dressed upon the bed, and walked about his chamber: yet he died in the night, without the nurse, who was at hand, observing any particular commotion in him. A few minutes before his death, she heard a rattling and groaning; but, ere she could call for assistance, the struggle was over.

The whole right lung was converted into a hard liver-like mass; the left sound, with the exception of traces of superficial inflammation in the inferior lobe. Neither tubercles nor ulceration existed. From the pericardium, which was greatly distended, and of a deep red colour, a quantity of yellow lymph escaped, on incision. Its whole internal surface, and the external surface of the heart, and all the large blood-vessels at their origin, were covered with a shaggy membrane; which might be detached with the forceps, and was evidently a lymphatic exudation. That which invested the enlarged right portion of the heart was every where of a dark-red colour; and the inflammation extended into the pulmonary artery. The left portion of the heart was very much smaller; and its internal surface, as well as the aorta, free from every vestige of inflammation.

That, with inflammation of the right lung, pain existed in the left side, is a matter of little moment. But that carditis, in a severe and strongly marked form, should be discovered on the body of a man who, only the day before, had walked about his room, with trifling cough, may well excite our wonder. Here there existed neither distress, pain, nor coldness of the extremities. The pulse was full, moderately hard, and frequent: yet the right heart was completely, and the left superficially inflamed.

On the next day, a servant maid, aged sixteen, died under the following circumstances: She had always enjoyed good health, when she was suddenly seized with violent fever, difficulty of breathing, and cough. On the second day of the disease, she was brought into the Charity. Her respiration was then, in the highest degree, oppressed and hurried; the pulse small and hard; the cough frequent and dry. The respiration even equalled the pulse in frequency. Copious blood-letting procured some relief. The blood was coated with a thick lymph. In the evening the respiration was again dreadfully oppressed; the pulse somewhat fuller; the prostration of the patient very great; the extremities cool. Sinapisms were now applied; calomel liberally administered; and mercurial ointment rubbed in upon the whole thorax. Next morning, no relief was obtained from a second bleeding. The application of twelve leeches to the chest was equally unavailing. The calomel and mercurial ointment were continued. In the evening, there was an exacerbation of fever; yet, on the morning of the third, a considerable remission was observed. Still, however, the pulse continued small, hard, and frequent; the respiration hurried and small. The senses of the patient were quite collected; the temperature of the skin natural; and, notwithstanding the acceleration of the pulse and breathing, the marks of recovery were gradually unfolded. The long dry cough was, from the fourth day, accompanied with expectoration; and the appetite of the patient, in a very slight degree, returned. She became also more cheerful; and her voice, at first inaudible, again clear. On the 14th, (the seventh day of the disease) she sat up to supper, with apparent cheerfulness; but suddenly fell back and expired. In the early part of the morning, the pulse was very irregular, although the respiration had been more free.

On dissection, the lungs were sound; but exhibited very slight traces of superficial inflammation on their inferior surface. The heart also was quite healthy. But the pericardium exhibited the appearance of a bladder, so dry as to crackle beneath the finger.

A few days previous to this occurrence, another female, aged eighteen, was admitted, exhibiting precisely the same phenomena, except that the pulse was more small and rapid; respiration shorter, and more oppressed; and the cough of much longer duration. She was treated in the same manner, and escaped with life. She is now completely recovered*.

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* Journal der Practischen Heilkunde, November, 1820.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

London Medical Society, Bolt Court.—This society resumed its meetings on Monday last, Sept. 24th, under the most favourable auspices. After the miscellaneous business, which always precedes the reading of papers, had been gone through, Dr. Copland read the first part of a very interesting paper, showing the influence of the ganglionic class of nerves over the vascular and muscular systems; also upon the various organic functions; and in the generation of animal heat, &c. &c. As we expect to lay before our readers some communications from Dr. C. upon this subject, in some early Numbers of the REPOSITORY, we need not, at present, show the various other inferences he has endeavoured to draw respecting the functions of this system of nerves in health and disease.

Medico-Chirurgical Society of Edinburgh.—It is with pleasure that we announce the formation of a Medico-Chirurgical Society in Edinburgh. The society is formed upon the model of the Medico-Chirurgical Society of London; and has in view precisely similar objects. Most of the medical Professors in the university, and many of the most respectable Practitioners in the city, have co-operated in its formation. Dr. Duncan, Sen. has been elected its first president. Its sittings commence in the approaching winter session.

In addition to ordinary and honorary members, provision is made for the admission of corresponding members; and it is hoped that many, in almost every part of the world, and such especially as retain a grateful recollection of the advantages they derived from their alma mater, will not be backward in supplying interesting communications.

Communications may be transmitted to the president of the society, or to either of the secretaries, according to the following addresses:

Dr. W. P. ALISON, 44, Heriot Row, Edinburgh.
Dr. ROBT. HAMILTON, 3, Northumberland Street, Edinburgh.

The Society of Sciences and Arts of Utrecht has announced the following question for competition: "Can we, by surveying any particular part of the body of an animal that we have not had an opportunity of observing in life, conclude, with certainty, what use is made of that part; so that we may look on this principle of final causes, not only as an useful principle, but as always a sure guide in the natural history of the animal kingdom?"

Hartshorn, its Use in Intoxication.—Dr. Porter, a German physician, states that he has found the spirit of hartshorn (in the dose of a small teaspoonful in a glass of water,) to counteract the inebriating effects of fermented liquors and spirits.

Scarlet Fever.—It is announced in the Journal de Medicina Pratique, of Berlin, that the Belladonna is a preservative against this fever. The fact was first discovered at Leipsic, but it has lately been confirmed by several experiments.

A METEOROLOGICAL TABLE,

From the 21st of AUGUST to the 20th of SEPTEMBER, 1821.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.	Barometer. Min.	Therm. Max	Therm. Min.	Rain Gauge.	Winds.	Weather.
21	29 91	29 91	76	56		NW.NE.	13 Sun. 24 Cloud...
22	29 88	29 82	77	58		NE.SE.	1 Mist... 23 Sun.. 4 Clo...
23	29 75	29 67	78	51		SSE.	1 Cloud... 2 Sun...
24	29 67	29 67	75	56		SE.NE.	1 Sun....
25	29 73	29 67	64	54	60	NNE.	1Mist...2Cl...34T....L....R....
26	29 89	29 86	62	44		NE.	1 Cloud...
27	29 89	29 82	69	48		EbN.	1 Sun.. 3 Cloud..
28	29 74	29 65	66	49		E..	14 Cloud... 23 Sun.
29	29 60	29 50	67	54		E..	14 Cloud.. 23 Sun..
30	29 47	29 43	65	54	23	NE.	1 Rain .. 2 Cloud..
31	29 53	29 50	68	53		NNE.NbW.	1 Cloud....
1	29 67	29 66	70	41	01	NW.NE.	1 Rain. 2 Sun.. 4 Starl....
2	29 63	29 54	75	50	02	Variable.	1 Sun.... 2 Sun.. 4 Rain.
3	29 53	29 42	75	55		SW..	1 Cloud.. 2 Sun...
4	29 24	29 16	79	56		S..SW...	1 Sun..
5	29 53	29 49	65	52	09	SW...SSW.	1 Rain. 2 Sun..
6	29 47	29 38	76	57	28	SE.SW...SbW.	1 Cloud... 2 Sun.. 4 Rain...
7	29 28	29 27	70	52	25	SE.SW.	13 Sun. 24 Rain...
8	29 33	29 26	68	48		SW.	1 Cloud.. 2 Sun..
9	29 30	29 29	71	44	03	SW.	134 Show. 2 Sun..
10	29 50	29 41	67	46	02	SW..	13 Sun.. 2 Show. 4 Moon..
11	29 57	29 33	65	52		SW..	1 Sun.. 3 Cloud..
12	29 45	29 22	67	50	29	SE.SW..W..	1 Rain... 2 Sun..
13	29 60	29 52	66	50	10	W..	1 Sun.. 3 Cloud... 4 Rain..
14	29 82	29 77	68	52	03	WbN.	1 Rain. 2 Sun. 34 Cloud...
15	29 82	29 80	73	53	02	E.SW.	1 Clo.. 2 Sun. 3 Ra. 4 Mn..
16	29 77	29 71	70	54	02	Variable.SW.	14 Rain. 23 Sun..
17	29 67	29 47	68	57	06	Variable.	1 Sun. 2 Show.
18	29 46	29 44	65	51		SW.WbN...	1 Cloud.. 2 Sun...
19	29 60	29 57	62	46		WbN...	1 Sun...
20	29 50	29 45	60	49	43	SW.S.NE.	13 Cloud... 24 Rain....

The quantity of rain during the month of August was 2 inches and 13-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Apoplexia, Asthenia, Calculi biliares, Cephalalgia, Cynanche tonsillaris, Diarrhœa, Delirium tremens, Dyspepsia, Dyspnœa, Epistaxis, Febris catarrhalis, Febris simplex, Gastrodynia, Hæmatemesis, Hæmoptoë, Hydrops, Hydrothorax, Menorrhagia, Obstipatio, Odontalgia, Ophthalmia, Pertussis, Rheumatismus chronicus, Spasmi, Syphilis, Tænia, and Vaccinia. Hæmorrhages of all kinds have been more prevalent during this last period than usual.

THE METEOROLOGICAL JOURNAL,

From the 19th of AUGUST to the 20th SEPTEMBER, 1821,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon.	Rain.	Therm.			Barom.				De Luc's Hygrom.		Winds.		Atmo. Variation.		
20	☾		63	74	60	30	19	30	21	53	54	E	ESE	Fine	——	——
21			63	76	63	30	20	30	17	54	51	E	ENE	Fine	——	——
22			65	75	63	30	16	30	14	62	61	ESE	ESE	Clo.	Fine	——
23			65	74	62	30	08	30	01	62	61	ENE	E	Clo.	Fine	——
24			63	75	60	29	95	29	93	61	61	E	E	Clo.	Fine	——
25			68	74	60	29	97	29	95	60	61	SW	SW	Fine	——	——
26			63	67	58	30	01	30	00	60	61	ENE	E	Rain	Fine	Clo.
27	☽		60	60	56	30	07	30	12	59	59	ESE	SE	Clo.	——	——
28		,15	59	63	50	29	95	29	88	58	60	E	E	Rain	Clo.	Rain
29		,22	53	60	55	29	81	29	74	60	60	SE	SE	Rain	——	——
30			57	65	58	29	73	29	71	57	61	SW	SSW	Fine	Sho.	Rain
31		,25	59	68	60	29	74	29	81	60	63	W	WNW	Fine	Rain	T. L.
1		,13	60	66	61	29	90	30	01	62	60	NE	NW	Rain	——	Clo.
2			64	68	60	30	02	30	05	59	59	W	W	Fine	——	——
3		,05	63	71	62	29	97	29	91	63	59	SW	SW	Sho.	Fine	——
4	☽	,11	65	70	59	29	83	29	77	60	60	WSW	WSW	Sho.	——	Fine
5			62	71	60	29	90	30	00	58	59	SW	S	Fine	——	——
6			61	68	57	29	91	29	83	60	60	S	SSE	Clo.	Fine	Clo.
7			60	68	55	29	70	29	57	60	60	S	SSW	Clo.	——	——
8		,14	59	65	53	29	61	29	75	60	60	W var.	WSW	Rain	Clo.	Fine
9		,16	55	61	49	29	69	29	64	61	61	W var.	W var.	Sho.	——	——
10		,19	53	60	51	29	74	29	88	61	59	W var.	W var.	Sho.	——	Fine
11	☉		57	65	56	30	00	30	00	58	58	W var.	W var.	Fine	——	——
12		,14	59	63	55	29	58	29	85	58	58	W var.	W var.	Sho.	——	Fine
13		,13	58	67	53	29	91	29	98	58	60	W	WNW	Sho.	——	Rain
14		,25	57	65	60	30	09	30	15	61	60	SE	NE	Rain	Clo.	——
15			61	67	57	30	19	30	24	60	61	NE	N	Fog.	Fine	Fog.
16			59	67	60	30	17	30	20	60	61	W	W	Clo.	Fine	Clo.
17			61	69	58	30	21	30	12	58	58	WNW	W	Fine	——	——
18	☾		63	71	57	29	95	29	88	57	55	W	W	Fine	——	——
19			61	70	59	29	95	30	02	55	55	W	NW	Fine	——	——

The quantity of rain during the month of August was 1 inch and 67-100ths.

A REGISTER OF DISEASES

Between AUGUST 20th and SEPTEMBER 19th, 1821.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	4		Hæmoptöe	2	
Abscessio	2		Hæmorrhois	6	
Amenorrhœa	5		Hemiplegia	2	
Anasarca	13	2	Hepatitis	17	
Apoplexia	3	2	Hernia *(reduced after strangulation)*	1	
Ascites	4	1	Humoralis	1	
Asthenia	8		Herpes *labialis*	2	
Asthma	21	4	Hydrocele	2	
Atrophia	1		Hydrocephalus	1	1
Bronchitis *acuta*	1		Hydrothorax	1	1
——— *chronica*	2		Hypochondriasis	1	
Bronchocele	5		Hysteria	5	
Carbunculus	3		Icterus	1	
Cardialgia	2		Impetigo *scabida*	2	
Carditis	2		Ischias	2	
Catarrhus	23		Ischuria	3	
Cephalalgia	20		Leucorrhœa	9	
Cholera	69	1	Lichen *simplex*	4	
Colica	14		Lithiasis	1	
Convulsio	5	1	Lupus	1	
Cynanche *Tonsillaris*	13		Melancholia	1	
——— *Trachealis*	1	1	Menorrhagia	6	
——— *Parotidea*	3		Miliaria	3	
Diabetes	1		Morbi Infantiles*	39	1
Diarrhœa	49		——— Biliosi*	20	
Dysenteria	5		Nephritis	3	
Dysmenorrhœa	1		Obstipatio	10	
Dyspepsia	33		Odontalgia	6	
Dyspnœa	7		Ophthalmia	18	
Dysuria	1		Otalgia	3	
Ecthyma	1		Palpitatio	5	
Eczema	2		Paralysis	7	
Enteritis	8		Paraplegia	1	
Entrodynia	5		Peripneumonia	9	
Epilepsia	2		Peritonitis	9	
Epistaxis	4		Pertussis	2	
Erysipelas	5	1	Phrenitis	1	
Erythema *læve*	2		Phthisis Pulmonalis	21	5
Febris *Intermittent*	7		Pleuritis	4	
—— *catarrhalis*	13		Pleurodyne	7	
—— *Typhus mitior*	7		Pneumonia	23	3
—— *Synochus*	8	2	Podagra	3	
—— *Puerpera*	1		Pompholyx *benignus*	1	
—— *Remit. Infant.*	8		Porrigo *larvalis*	2	
Fistula	1		——— *decalvans*	1	
Furunculus	3		——— *scutulata*	2	
Gastritis	1		——— *favosa*	3	
Gastrodynia	10		Prurigo *mitis*	5	
Gonorrhœa *pura*	12		——— *senilis*	5	
Hæmatemesis	2				

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Psoriasis *guttata*	1		Strophulus *intertinctus* .	1	
——— *inveterata*	1		Singultus	1	
Pyrosis	6		Syphilis	15	
Rheuma *acutus*	18		Tabes Mesenterica	6	1
——— *chronicus*	27		Tic Douloureux	1	
Rubeola	5		Vaccinia	15	
Rupia	3		Varicella	7	
Scabies	41		Variola	18	1
Scarlatina *simplex*	11		Vermes	9	
——— *anginosa*	3		Vertigo	15	
——— *maligna*	1		Urticaria *febrilis*	3	
Scrofula	6				
Spasmi	1		Total of Cases	946	
Splenitis	1		Total of Deaths		28

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

Two of our reporters have failed, this month, in their accustomed supply of lists. The monthly proportion of diseases, had it not been for this failure, would have been greater than an average crop. Affections, which implicate the first passages and biliary organs, have been even unusually prevalent, from dyspepsia, to diarrhœa, and thence to cholera — the last, in some cases, has proved very frightful in its aspect. The reporter thinks that young children have proved more than commonly susceptible this season of the derangements incident to the season.

" Four of the cases of small pox here reported," says Mr. Burgess, " were children in one family, who were vaccinated by Mr. Burch, of Prescott Street, Minories."

MONTHLY CATALOGUE OF BOOKS.

Thomas's Practice of Physic. Seventh Edition, greatly improved and enlarged, in 8vo. 18s.

A Familiar Treatise on the Disorders of the Stomach and Bowels. By George Shipman. 8vo. 4s. 6d.

Essays on Female Economy. By John Power, M. D. 8vo. 4s. 6d.

Lectures on the Structure and Physiology of the Male Urinary and Genital Organs of the Human Body. By J. Wilson. 8vo. 14s.

Shaw's Manual for the Student in Anatomy, &c. &c. 10s. 6d. — A Synopsis of the Diseases of the Eye, and their Treatment, &c. By B. Travers. Second Edition, with Plates. 25s.

T. and G. Underwood's Medical Catalogue. — A Supplement to a Catalogue of Books in Anatomy, Medicine, Surgery, Midwifery, Chemistry, Botany, Materia Medica, Pharmacy, Natural History, &c. &c.; corrected to the present time. Of whom may be procured, a complete List of the Lectures on the above Subjects, delivered in London, with their Terms, &c. &c.

NOTICES OF LECTURES.

Dr. Davis will commence his next Course of Lectures on the Theory and Practice of Midwifery, and on the Diseases of Women and Children, on Tuesday the 2d of October, at half-past Ten o'Clock in the Forenoon, at his House, No. 29, George Street, Hanover Square,

Dr. Merriman, Physician-Accoucheur to the Middlesex Hospital, and Dr. Ley, Physician-Accoucheur to the Westminster Lying in Hospital, will commence a Course of Lectures on the Theory and Practice of Midwifery, and the Diseases of Women and Children, on Monday next, the 8th of October, at Half-past Ten o'Clock.

Particulars may be learnt at Dr. Merriman's, No. 26, Half-Moon Street, Piccadilly; at Dr. Ley's, 24, Mount Street, Berkeley Square; and at the Middlesex Hospital, where the Lectures will be given.

Medical Lectures, Middlesex Hospital. — The following Course of Lectures will commence on Monday, the 8th of October. On the Theory and Practice of Physic, by Dr. Southey; on Chemistry, by Dr. Ashburner; on Materia Medica and Pharmacy, including Chemical Illustrations of the Pharmacopœia, by Dr. Ashburner and Mr. Wood; on Midwifery, and the Diseases of Women and Children, by Dr. Merriman and Dr. Ley.

Theatre of Anatomy, Medicine, &c. Blenheim Street, Great Marlborough Street. — The Autumnal Course of Lectures, at this School, will begin on Monday, October 1st.

Anatomy, Physiology, and Surgery. By Joshua Brookes, F. R. S. daily, at Two. Dissections as usual.

Chemistry, Materia Medica, &c. daily, at Eight in the Morning; Theory and Practice of Physic, at Nine, with Examinations. By Dr. Ager.

Three Courses are given every Year, each occupying nearly four Months. Further Particulars may be known of Mr. Brookes, at the Theatre; or of Dr. Ager, 69, Margaret Street, Cavendish Square.

LITERARY NOTICES.

We understand that Mr. Parkes is preparing for immediate publication, an Answer to the Accusations contained in a Letter addressed to him by Mr. Richard Phillips, and published in the Twenty-second Number of the Journal of Science, Literature, and the Arts.

Dr. Rigby is printing a New Edition of his Essay on Uterine Hæmorrhage, with some additional Observations.

Dr. Copland is preparing for publication a work on Physiology and Pathology, which will form the first two parts of a System of Medical Science.

NOTICES TO CORRESPONDENTS.

Communications have been received from Dr. Gregory, Mr. Dennis, Mr. Perry, Mr. Merveilleux, Mr. Sutleffe, and T. M. W.

We have been favoured with two or three Communications on the subject of the Apothecaries' Act, but we decline publishing them for a reason which will be obvious to the writers. While we wish not to shrink from any duty as public men, we, at the same time, are not anxious to engage unnecessarily in party and personal concerns.

A small but exceedingly well-written book *has but just come to hand*, on the Pathology and Treatment of Typhus Fever, although the date of it is 1817, and the date of the letter which accompanies it 1819. It is written by Dr. Callanan, of Cork, and although it is now too late for reviewing it in a regular way, we mention the thing in justice to the author, and in our own defence against the probable imputation of intentional neglect.

*** *Communications are requested to be addressed (post paid) to* Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

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PART I.

ORIGINAL COMMUNICATIONS.

I.

Observations on the Autumnal Bilious Epidemic of 1821. By George Gregory, M.D., Senior Physician of the St. George's and St. James's Dispensary.

The summer and autumn of 1821 have proved remarkable for the vast quantity of rain that has fallen, and for the very short period during which there has been settled fine weather. In London, throughout the whole of July and August, and during the first three weeks of September, it was seldom that the twenty-four hours passed without rain. The atmosphere was almost constantly loaded with vapour, while at the same time a sultry heat prevailed, which was generally complained of as very oppressive. It would have been reasonable to expect, that the long continuance of so peculiar a state of the weather would lead to some peculiarities in the character of the existing diseases; and I have certainly had occasion to think that this anticipation has been fulfilled. I am free to confess, however, that the circumstance was forced upon my attention before I entertained any idea of its probability; and it cannot be supposed, therefore, that in the views which I have been led to entertain of the influence of this weather upon diseases, I was at all guided by any preconceived opinions.

From newspaper reports, it appears that the same kind of weather prevailed in many other parts of the country; and it will be interesting to observe, whether an effect has been

there produced by it upon the human constitution, similar to that which, from my own observations, I presume to have been generally noticed throughout London. It has been stated, that in several places, particularly at Nottingham, cholera has prevailed to an extent but seldom witnessed in this country. From the result of some conversations which I have had with persons who have been lately travelling on the Continent, it would appear, that there the weather has been equally different from that of ordinary seasons; and it may not, perhaps, be altogether fanciful, to couple with this, the breaking out of an alarming fever upon the north-eastern coast of Spain, attended with bilious symptoms, and obviously possessing some characters which would assimilate it to the diseases that have latterly been observed in London.

It is in the hope of contributing some materials for ascertaining the kind and degree of influence which is produced upon disease by a summer of unusual moisture, that I have ventured to draw up the following observations, and to submit to the readers of the Repository the results of my own very limited experience.

It is unnecessary to state formally, that the peculiar character of the diseases which have been seen in London during the last two months was derived from some morbid condition of the bile. Bilious diseases have been so constantly found to prevail at this season of the year, that there could be no necessity for noticing them at the present time, unless they prevailed to some uncommon extent, or exhibited appearances different from those of ordinary years. In both respects, the bilious epidemic of the present autumn appears to me deserving of attention. The extent to which it has prevailed is, I should imagine, almost unprecedented; and the aspects under which it has been observed have been singularly diversified. This last circumstance being one which has more particularly attracted my notice, I may begin by detailing the several appearances which the epidemic has assumed. I shall then allude, in a cursory manner, to what appear to have been its causes, remote and proximate; and shall conclude by a few remarks on the treatment which it has required, and the effects of particular remedies upon it.

The following were the most usual aspects under which I had occasion to observe the present epidemic:—

1. An attack of *dyspepsia*, attended with bilious vomiting. Sometimes this occurred quite suddenly; but more commonly the patient had been complaining for a day or two of some degree of nausea, with restless nights, and a feeling

of languor and oppression. In one case, I observed the first symptom to be a fainting fit, followed by the discharge of a large quantity of bile from the stomach, which afforded immediate relief. A smart purgative medicine was afterwards administered, which in a few hours brought away an abundance of bilious motions; and the patient was able the next day to resume his business.

2. The next form which I observed the epidemic to assume, was that of *bilious diarrhœa*, without fever; and this was certainly the most frequent of all. Occurring in this form, the disease sometimes carried itself off in the course of twenty-four hours, the stools being then loaded with bile. The stomach, indeed, generally continued impaired in its functions for a day or two afterwards, as evinced by the fetid eructations and loss of appetite, of which the patient complained. In the generality of cases, however, the motions which were first brought away resembled a mixture of chalk and water; and, under these circumstances, the diarrhœa would frequently be kept up for several days. An aperient draught was of great service in these cases, and never failed to afford relief, when the stools procured by it changed from a white to a very dark yellow colour. The quantity of these evacuations was in many instances enormous; but, so far from feeling weakened by them, the patient generally acknowledged himself freed from a load which was oppressing to him.

3. The third form which the epidemic exhibited, was that of *bilious colic*, characterized by griping pains of the bowels, and a costive state of body, or at most tenesmus, the motions being very scanty and slimy. Feverish symptoms were generally present at the same time; and the bilious colic, therefore, might also have been called *bilious fever*. Feverish symptoms also frequently supervened on the bilious diarrhœa, when the due evacuation of the bile was either neglected, or imperfectly followed up. This commonly happened on the fifth or sixth day, the patient exhibiting in the interval a deceitful remission of all the symptoms. The attack of bilious fever was ushered in with rigors, succeeded by giddiness, headach, griping pains in the bowels, restlessness, great thirst, loathing of animal food, and much languor and lassitude. A case, with the history of which I was favoured by Mr. Hay, began with very formidable symptoms of determination of blood to the head. The character of the countenance was but little altered, however, and expressed none of that febrile anxiety which is so remarkable in the common fevers of this town. The pulse was seldom much accelerated. The tongue was loaded, the fur upon it being often yellow,

and in streaks. The headach was very urgent, and was referred sometimes to the temples, but more commonly to the back of the head. This last symptom was seldom relieved, except by vomiting, which generally brought away, in these cases, a quantity of yellowish glairy fluid, resembling the yolk of an egg. In many instances a short dry cough was present, — evidently of a sympathetic kind, for there was no corresponding pain of the chest, and the thorax could be expanded perfectly.

When a discharge of feculent bilious matter could be obtained, the symptoms commonly yielded; but it was often exceedingly difficult to procure evacuations of this character. The stomach was either so irritable as to reject medicine, or the purgative increased the pain so much, that the patient could hardly be persuaded to continue its use until the proper effect had been produced. The exhibition of an opiate allayed the pain, and gave temporary relief; but it was almost invariably followed, the next day, by increased feverishness, and an aggravation of headach. Where bilious stools were not procured, watery secretions from the bowels took place, of a brownish or purple colour, and often in vast quantity, reducing the patient to a state of extreme weakness. The bowels were oppressed, too, with flatus. Many patients were harassed in this sort of way for several weeks, when, either by the efforts of nature, or a fortunate combination of medicines, the irritating matters were brought away; upon which the tongue became clean, the appetite returned, and the patient recovered strength.

4. The fourth character which the epidemic assumed, was that of high irritation throughout the bowels, closely resembling, and perhaps, in some instances, actually merging in *peritonæal inflammation*. The abdomen became so tender, that the patient complained of the slightest touch, and of the weight of a few bed-clothes. Yet in this state there were not often other symptoms which indicated inflammatory action. The tongue, for instance, was preternaturally red; and the expression of countenance was but little different from that of health. The patient, too, could sit up without aggravating the pain; and blood drawn from the arm was neither cupped nor buffy. The pulse was commonly not more than 76, and soft. In one of the severest of the cases, however, which fell under my care, it was becoming hard at the time I directed a bleeding, and I could have no doubt that peritonæal inflammation was then supervening. This excessive tenderness of the bowels was considerably relieved by bleeding, leeches, and fomentations; but I observed that they were seldom effectual, unless their application was

followed (as it often was) by a free discharge from the bowels.

5. The next form in which it occurred to me to witness the present epidemic, was that of genuine cholera, attended with cramps of the legs, extreme thirst, cold perspirations, and a sensation of intolerable burning heat in the bowels. I heard of several deaths from the disease when it assumed this severe form, but saw only one. In this case, the symptoms lasted from Sunday, Sept. 2, to Friday, the 7th. It appeared, however, that the bowels had been previously out of order, and were suffered to continue so, for a very considerable time.

6. The last form of this epidemic which I think it necessary to mention, is that of jaundice, which it assumed in a great many cases. In those which fell under my own care, there were no symptoms which could warrant the suspicion of gall-stones. Several patients, after exhibiting some one of the more common forms of the epidemic, became jaundiced; but in most of these cases the disease went off easily, with the help of some mild bitter aperient.

It remains to be stated, that the disposition to bilious complaints, which existed at the particular period of which I am speaking, seemed to affect those who were suffering under other diseases, and to modify many of their symptoms. I had occasion to see several persons labouring under thoracic diseases (consumption and chronic bronchitis), suddenly attacked with headach, dyspnœa, and a tumid state of the abdomen, from which they were speedily relieved by any medicine which effectually evacuated the bowels. The stools so procured were generally of the colour, and sometimes of the consistence of tar. Small-pox also seemed to alter its character; and, instead of the usual tracheal symptoms, I observed that the confluent cases chiefly suffered from obstinate vomiting, diarrhœa, and, in one instance, decided peritonæal inflammation. Scarlet fever was epidemic at the same time, but it did not occur to me to observe any peculiarity in its symptoms.

The reporter in the last Number of the Repository remarked, how very generally this epidemic affected children, and with this observation my own experience entirely coincides. It appeared to me, that children between the ages of eight and twelve were particularly liable to be attacked by it. The urgent symptoms with them all were headach and extreme languor; but the whole character of the disease, even when much fever was present, was easily to be distinguished from that, so often observed at other seasons

of the year, and in which we have so much reason to dread the termination, by serous effusion within the ventricles.

A commonly received opinion refers this, as well as the usual autumnal epidemic, to irregularities in diet, particularly the eating plums. There can be no question, but that this, as well as any other improper article of diet, would contribute to bring on the disease; but there was evidently some higher and more general cause to which it owed its origin. Many persons were affected, and even suffered severely by it, who never ate plums, and whose whole course of living was very regular. Besides which, an exciting cause of the disease, much more common than eating plums, was fatigue and long watching. We must agree, then, with Sydenham, that "there lay concealed in the air of this particular month some peculiar disposition, which was able to impregnate the blood and humours with some specific alteration."

The epidemic of the present autumn very closely resembles that which is described by Sydenham, as prevailing in London in the summer months of 1670, 1671, and 1672, and called by him the *bilious colic.* He notices the extreme languor and despondency which attend the disease,—the jaundice which sometimes supervenes, and vanishes spontaneously in a few days,—and many other of those peculiarities which attracted my attention in the diseases of the last two months. The epidemic appears to have been at its height about the end of August and beginning of September; but many cases continued to present themselves at the St. George's and St. James's Dispensary up to the very end of September. The weather underwent a very remarkable alteration on the 22d of September: a severe thunder-storm took place, the rain ceased, and the air became colder. At the time I am writing, (Oct. 10th,) it seems to me that we are beginning to witness the ordinary character which diseases assume during the winter months.

If I was to speculate on the proximate cause of this epidemic, I should say, that the symptoms authorized the supposition of an altered condition of the bile. This fluid appeared to be secreted in greater abundance than natural, and to be depraved in quality. It seemed to want that cathartic power which it usually possesses, or to have acquired some preternatural acrimony. I have little doubt, that something like this was a general principle pervading all the diseases that were observed during the two last months; and that a gradation might, in fact, be traced in nature, from the slightest case of bilious vomiting occurring

in London, to the cholera of Bengal, and the yellow fever of North America. It is not unreasonable to suppose, that the moisture of the preceding summer months had been, in a great degree, the occasion of this alteration in the secretions of the liver. After dry summers, during which a much more intense degree of heat prevailed, the same extent of bilious diseases have not been observed. It is sufficiently obvious, from the whole character of the symptoms, that the bile, thus vitiated, irritated the bowels — threw their muscular coat into spasmodic contraction — and then, lodging in one of the sacs so formed, occasioned those watery secretions which characterized the latter periods of the disease.

In the treatment of the common forms of this epidemic, I had certainly these speculations in my mind, and perhaps my practice may have been in some degree warped by them. I have understood that other Practitioners, who had extensive opportunities of seeing it in all its forms, seldom found it necessary to give more than an occasional mild aperient, trusting for the most part to absorbents and opiates. From what I have witnessed of the effects of the latter remedies, I should say that they were seldom if ever of use, except to allay the irritation of the bowels for a short time, so as to enable the Practitioner to exhibit his aperient with more effect. It was seldom that I found any occasion to administer an opiate *after* the operation of the purgative, in the manner recommended by Sydenham. It seemed to me, on the contrary, that when the bowels were once effectually relieved, it was better to desist from medicine, or rather to exhibit occasionally some gentle aperient, which might *prevent accumulation.* From want of attention to this point, many of the severest cases of the *bilious fever* appeared to me to originate. The appearance of the stools was commonly an excellent index to the state of the disease. I except, of course, those cases where inflammatory action prevailed, but I am not inclined to think that these were in any considerable number.

It was an object of the first importance to be called in early; for there can, I think, be no question, that judicious measures then pursued had a very considerable power in arresting the further progress of the disease. Unless full vomiting had previously taken place, I generally found it advisable to begin with an emetic of ipecacuanha; and in cases where a costive state of the bowels prevailed or mere tenesmus, followed this, a few hours afterwards, by an aperient. I made trial of a great variety of purgative medicines, castor oil, senna, rhubarb and calomel, salts. Upon the whole, I am inclined to give the preference to the bitter

aperients, senna and rhubarb; but calomel seemed to answer very well in many cases. I tried calomel, at first, in combination with opium, where the pain of the bowels was very acute; but I did not find that degree of benefit from it which inclined me to continue the practice. Castor oil was very often rejected. Small doses of the magnesiæ sulphas, in conjunction with a few drops of tinctura opii, were very serviceable in keeping up a gentle action in the bowels, after the more powerful aperient had produced its due effect.

During the convalescence of some of the most tedious cases, when the tongue was becoming clean, and when all pain of the bowels had ceased, I derived considerable advantage from a light tonic. Equal parts of camphor mixture and decoction of bark answered remarkably well; but at an earlier period of the disease, such medicines proved, in my hands, decidedly prejudicial.

I have not had sufficient experience among cases assuming the character of cholera, to enable me to state what system of treatment was found most efficacious in them. With regard to the jaundice cases, the milder ones yielded spontaneously, and the more severe were benefited by moderate but regular purging.

II.

Observations on the Fevers, as they appeared in the Flag-Ship and Childers, in the West Indies; tending to prove that they arose from different Causes, and are not of the same Family or Species. By Thomas Brawn, Esq., West Indies.

I trust I shall obtain forgiveness when I request permission to engage in the examination of a paper from the pen of an individual of some eminence in the Profession. Such an examination would have been superfluous, had the paper been the production of one as deeply enveloped in obscurity as the writer of this article; and the consequence to society would have been as nugatory, as the notoriety of the person who now intrudes himself. When doctrines of a doubtful nature are inculcated by the principal medical officer of the army, on a station which for disease and devastation is the horror of the European, the consequences are likely to be of the most serious importance. The doctrine held forth in that paper must have considerable influence even on the old army Practitioner; and with the young it would be heresy to have it questioned.

The distance I am removed from the metropolis, and the inconvenience I experience in obtaining regularly the dif-

ferent periodical publications, must plead my excuse for the delay of this communication till the present moment. In taking up the 8th volume of the Medico-Chirurgical Transactions, I was much surprised at reading in a paper the doctrine there held forth,— a doctrine, I hope, as untenable as it is fraught with baneful effects.

The principles on which this paper hinges are of no small consideration to a country of such political and commercial importance as the British empire.

When quarantine laws are wantonly imposed, they must eventually be injurious to the commerce and revenue of a state. Therefore, while contagious diseases are imagined to exist, and recur so frequently as they are supposed to do in the West Indies, a pretext is given for the rigid enforcement of such laws, which may be totally dispensed with, as far as regards any danger to be apprehended from these islands. It may, therefore, be of some moment to inquire into the source whence the doctrine of the paper alluded to springs, because some error has taken place in regard to the fever which made such devastation in his Majesty's brig Childers.

Dr. Fergusson has given properties to this fever, which, in his more dispassionate and reflecting moments, he evidently does not admit it to possess. He has also furnished the advocates for contagion with a triumph to which they are by no means entitled: he has bestowed on it qualities which he himself could never realize. I shall, therefore, attempt to show, that the Doctor's inferences have been incorrectly drawn.

I shall be able to prove, I hope, that the fever which appeared in the Childers never manifested, *at any period*, any thing of an infectious or contagious nature. I trust, also, that I shall be able to produce circumstances which will tend to prove, that the fevers of the West Indies do not originate from the same extensive remote cause — MARSH MIASMA.

It is generally, I may venture to say universally admitted, that the remote cause of one is marsh miasma, or the effluvium from vegetable matter in a state of decomposition or putrefaction, while that of the other is still inscrutable to human penetration. Whatever may be the different remote causes, these fevers may, however, be, by attentive observation, distinguished at an early period.

I shall make it my object, in the first place, to show that the fever which appeared so generally in the Childers was perfectly endemic, consequently devoid of any contagious principle.

In the second place, evidence shall be produced to prove,

that the pure endemic fever of the West Indies differs from the marsh or remittent fever; and that the former has arisen where no marsh miasma, &c. could have possibly existed.

That the fever which occurred in the Childers was as true a marsh fever as ever existed in Walcheren, or any uncleared, paludal situation within the tropics, I hope to prove satisfactorily; and that it had no right to the appellation of yellow fever, from one and the principal diagnostic symptom being, in every case except one, absent.

The squadron, consisting of the flag-ship of fifty guns, two frigates, two sloops, and one schooner, anchored in the gulf of Paria, Trinidad, about the 4th of August, 1816. The crew of which this squadron consisted experienced a perfect immunity from disease. On the 10th or 11th of this month, several cases of fever occurred on board the Childers; they did not appear, however, alarming to the Surgeon. On the evening of the 12th, this officer was seized with fever, the assistant Surgeon being also ill; and on the morning of the 13th, the Surgeon found himself so seriously indisposed as to be totally unable to perform his duty. The Surgeon of the flag-ship was requested to visit the Childers, and two assistant Surgeons from the squadron were sent on permanent duty.

At this period, to the best of my recollection, thirteen individuals were seriously ill of fever; some so far advanced, that no hopes of their recovery were entertained. Those attacked on this and subsequent days had an incessant vomiting of bilious matter; strong arterial action, the carotids beating violently; the face full, flushed, and congested; the skin hot, dry, and pungent; the tongue large, foul, furred of a dark brown colour; thirst; headach. These were the symptoms, generally, when the patient was first seen. They were, however, soon succeeded by a very different train of phenomena, the effects of strong determinations to important organs. A comatose state now supervened, from which the patient could scarcely be in some instances roused. In such instances the functions of the brain were materially altered, in consequence of a congested state from want of depletion. The *nervous and typhoid symptoms* which now appeared were the result of indirect debility, induced by previously strong determination of blood to the cerebrum. Hence are to be ascribed all the nervo-typhoid symptoms which made such a lasting impression on the Doctor's mind, and which induced him hastily to give it a character of an infectious nature, without his possessing a single datum of such an attribute. These symptoms indubitably arose from the canal being either totally neglected, or from the evacuation of blood

being improperly conducted in regard to time and quantity. The compressed state of the brain not only disturbed the sensorial functions, but those of more remote organs were implicated. This gave a character to the disease very different from that with which it started — a character that we have a right to expect in every case of a similar kind, where the disease is improperly treated or neglected. Hence the low muttering delirium, picking at bed-clothes, nervous tremors, passive hæmorrhages, and all symptoms of putrescency, occur in every patient in this fever, where it exceeds the usual term of duration — three or five days. When the constitutional powers are able to resist the disease longer than any of those periods, then its termination is usually preceded by such nervo-typhoid phenomena, yet without ever *showing the most remote degree of any thing like infection**. The patients exhibited all these various phenomena on board; yet in all these grades of fever the disease was not communicated to the transient medical or other visitor; nor were the nurses, though more exposed, more liable to the disease than those who had no connexion with the sick. If my observations be correct, I think the nurses were less obnoxious to fever than other people. The patients were received at Barbadoes hospital in all these various stages, which the Doctor has so forcibly delineated. Had as many patients landed with variola, I may be permitted to ask the Doctor if the disease would have stopped here? Whatever may have been the appearance of the patients when they landed, it is certain they did not take any *typhoid infection* out of the Childers; if it existed, that they left behind!

On our arrival at Barbadoes, the Doctor, with several of his staff, did us the honour of a visit; and though the ship was impregnated with a typhoid contagion, capable of infecting others within its sphere, of which the Doctor had but little doubt, yet I am happy to say, that neither himself nor staff felt any bad consequences from this test of humanity. Had this humane and zealous Physician suffered an attack of fever, he could have spoken, (and that pretty positively too,) from personal experience, of such a

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* With equal propriety may we denominate this case of fungus hæmatodes typhus; and may imagine it, from its termination, capable of communicating contagion. The author observes, that "the patient became feverish; his pulse extremely small and frequent; tongue parched, and of a dark brown colour; gums and teeth covered with sordes; and the sensorium much deranged. In short, he resembled a person in the last state of typhus. In this miserable state he lived four days."— *Med.-Chir. Trans.* Vol. VIII. p. 280.

contagion existing. But as he luckily escaped, in common with every other transient visitor, we must hope that the existence of such a fiend in the Childers was only anticipated. We had not a single instance of this "*typhoidal contagion*" *producing disease* at Barbadoes and Antigua hospitals, *though little less than eighty-six were landed. Is this any proof of the disease being contagious?* Out of a great many visitors that came on board from motives of humanity, we had but one instance of the disease being produced.

Between the 13th and 20th of August, the sick of the Childers were superintended by the Surgeon of the flag-ship: he was generally on board thrice a day; and he remained repeatedly an hour or two at once, without ever experiencing any inconvenience. This officer was consequently within the sphere of this "*typhoid contagion*" during these periods, when exposed in assisting and lifting the men in and out of bed, and administering such aid as he considered requisite for their recovery and comfort. Had this fever been contagious, this was likely to have produced it. Mr. A., the assistant Surgeon of the flag-ship, was likewise once or twice on board, bleeding, administering medicine, and affording every assistance his humanity could suggest, without ever suffering an attack of fever. Captain H. E. S., and many other officers, were also visiting on board the Childers during the prevalence of fever, yet none of them experienced an attack. When the Surgeon of the flag-ship visited the Childers, the young midshipmen, who attended in the boat, went almost invariably on board, and visited the hammocks of their sick brother-officers, without suffering the smallest inconvenience. The boat's crew of the flag-ship were on those occasions frequently called to lend their aid in lifting and shifting the sick and dying, without a case of fever occurring in that ship.

The Surgeon of the Scamander was the only person affected with fever who did not sleep in the Childers; but, having the medical superintendence, and laborious duties to perform, between the 20th and 27th of August, he was greatly exposed to the prevailing remote cause. During this period, the Childers, under the protection of the Scamander, was making a passage to Barbadoes to land the sick. Though all the medical men who slept on board were attacked, it is no proof that the disease was contagious, as they were all exposed to the same remote cause, in common with the crew, by sleeping on board. The effluvium at night is always more powerful than at any other period in the twenty-four hours.

Fear has ever been considered a powerful exciting cause

of disease: an instance I shall relate, to show that if fever were kept up by a "typhoid contagion," its operation should have had a powerful influence here. A young man, one of the seamen, was so strongly impressed with the infectious nature of the fever, that he ascended into the main-top*, and no entreaty would induce him to descend. When urged, however, by the imperious mandates of nature, he would, at night, unperceived, descend for a short time to comply with her commands; and, although exposed to the effluvium at these periods issuing from the bodies of the sick, he did not suffer an attack, though fear, as may be perceived, operated powerfully here. Had this fever been propagated by a "typhoid contagion, capable of infecting others within its sphere," we had in this instance a proper subject exposed to its powerful influence, under every favourable circumstance for its operation. That contagion did not exist in the Childers, appears, from what has been shown, tolerably conclusive. That the remote cause of disease resided in the vessel, and was perfectly unconnected with effluvium from the human body in a morbid state, will be made evident.

After landing the sick at Barbadoes, the Childers was navigated to English Harbour for the purpose of purgation. During this passage more were taken ill, and two died. The rest were landed at Antigua hospital; and, as already remarked, *no case of fever was produced there!!* One of the individuals who died on the passage from Barbadoes to Antigua, was the young man who retreated into the main-top to avoid contagion. When all the sick and the whole of their baggage were landed at Barbadoes hospital, he no longer dreaded contagion: he descended, and went to his work as usual; but he had not been more than two or three days employed, when he was attacked with fever, and soon fell a victim to its malignity.

The hold of this vessel was exposed at Antigua, for the purpose of purification. It was necessary to employ the government slaves on this occasion, who were accustomed to such offices. The effluvium or miasm issuing from the hold was so powerful, that even most of them were affected before the process was completed. That part of the crew which was hitherto enabled to resist the diluted miasm, now generally suffered, and, with the slaves, were landed at the hospital as soon as attacked; yet no disease was ever communicated.

These are sufficient to show, that the remote cause of disease was extremely powerful in the vessel. Had contagion existed, this principle so potent must have propagated

* An airy elevation, between twenty and thirty feet from the deck.

the disease with similar rapidity and effect when the body was removed from the vessel. This was not, however, witnessed, notwithstanding the great virulence displayed at its source. This "typhoid contagion" must have clung with a determined pertinacity to the bodies of the people when out of the vessel, and exhausted itself; for we see the fever again break out at Barbadoes, *when we had no sick on board, and the vessel well ventilated.* The same occurrence took place at Antigua. This "typhoid contagion" could not now have arisen from "*crowding below decks;*" for when the Childers left Barbadoes for Antigua, *twenty souls could not be numbered on board!*

If this "typhoid contagion" existed, in a state of fomites, in the vessel, why did it not appear also at the hospitals, where the sick went, with all their beds, bedding, and clothes? If the radiation of disease depended on effluvium from the body, the beds, blankets, &c. must have been thoroughly impregnated with it; and when these articles were removed, very little was left behind to contain this principle, so injurious to the remaining few. Infection has always had many wonderfully accommodating attributes; but I think it has often more influence over the minds than the bodies of mankind, and its existence is too frequently ideal.

The type of this fever had likewise, at its commencement, a different appearance from that of the endemic of the West. I, as well as others, entertained this idea, and that it had arisen from vegetable matter in a state of putrefaction. It was ascertained that the Childers had taken green wood on board, which had been cut down by her own crew some months before; and in this state it was stowed away in the hold. This was considered the cause of sickness, on account of the fever showing incontestably symptoms of remission; and in some cases intermissions were evident; therefore proving it to be of that family which derives its origin from paludal exhalations. The bilious dejections were corroborating proofs. The foul, brown, loaded tongue; the headach; the appearance of the countenance; the strong, full, hard pulse; the great reaction and pungent heat of the skin; did not indicate the existence of a "typhoid contagion" in the Childers. These were the early symptoms of disease; and *if they be characteristic of typhus, I have seldom witnessed any other in the West Indies.*

On making further inquiry into the state of the hold of the Childers, it was ascertained that it had not been cleared out for three years; and that as long as the hold was permitted to remain untouched, the crew would ever be subject to fever. The commander-in-chief was fully sensible of this; and to ensure salubrity to the future crew of this brig, he judged

it necessary to examine particularly the state of this vessel's hold. She was, therefore, as already stated, conducted to English Harbour, Antigua; and I have it from unquestionable authority that the hold was in a most filthy state. Three years' accumulation of vegetable substances, of various descriptions, were to be seen, composing a mass which must have almost covered the floor of the hold. This mass consisted of the bark and chips of wood, considerable quantities of pease, bread, and other vegetable substances, mixed with offals, and various species of filth: these, united to moisture, *rendered the hold as complete a lethalic marsh as ever existed in Walcheren.* I was informed that two dock-yard boats were required for the removal of this mass of highly offensive putrid vegetable matter. This is a circumstance not unknown to the commander-in-chief, the officers of the flag-ship, Dr. Crichton, and many others who were spectators of the fact.

What has been already adduced will, I presume, be sufficient to prove that the cause of disease resided in the Childers, and that it could have no operation beyond the sides of this vessel. The foregoing facts will likewise prove, that no typhoid contagion existed, no person having suffered an attack of fever but those who had immediate and direct communication with the Childers; and that an exposure of some considerable time was requisite before the miasm could take effect. Hence no transient visitor, except the Surgeon of the Scamander, was affected; and unless a great susceptibility existed, in the common state of the effluvium, passing a night on board seemed requisite before the fever could be produced. It is evident, from the circumstance of the main-top man, that the noxious miasmal stratum never ascended very high—perhaps only a few feet. Had the fever been kept up by "*typhoid contagion,*" it is probable this man would have suffered an attack, from his various exposures to human effluvium, when obeying the dictates of nature. This is another powerful argument against the presence of contagion, at any time, in the Childers. Under the strong predisposition which fear generally establishes, the main-top man could scarcely have escaped, had the disease been excited by contagion, especially when the ship's deck was covered with sick. When the people were removed to the hospital, this man's doubts were satisfied, that the "typhoid contagion" had gone with them; he therefore fearlessly descended to perform his usual duties. The consequences have been related. This was not a time when we should have expected to meet with fever from "typhoid contagion," especially as the individual had submitted to more frequent exposures to this supposed cause, during the

existence of a depressing passion, which gives a strong predisposition.

Sufficient evidence has been produced, I trust, to prove, that the fever in question was not, in any instance, traced from a source of typhoid or any other contagion; or that the effluvium issuing from one body under the influence of disease was incapable of exciting a similar action in another. From what has been already advanced it will appear, that the cause of this fever emanated from the hold of the Childers. The circumstance of the government slaves is strongly in evidence. They were attacked, in consequence of exposure, at a time when the vessel did not contain any thing but the filthy accumulation in the hold, with the noxious principles to animal life issuing therefrom. Such have been long viewed as a powerful cause of fever within the tropics. The luminous writings of Dr. Dickson and Mr. Mortimer prove this, in their respectively able expositions of the state of the Dart sloop of war and Regalia transport.

Every circumstance attending the attack of each individual goes to prove, that marsh effluvium was the cause of fever in the Childers — as far, at least, as it is possible to judge of the effects of any subtle and invisible agent. Taking into consideration the internal construction of the Childers, the radiation of disease, and its modifications, according to the intensity of application of the remote cause, some light may be thrown on this obscure subject. We can trace, I think, in a very satisfactory way, the various degrees of agency of this effluvium. These degrees we can ascertain to be in a ratio to the concentrated state of the miasm. Thus, those who were farthest removed from the source of this miasm were not affected, and those exposed to it in a diluted state had the fever less violently. To illustrate this point more fully, I herewith send a section of the internal part of the vessel in question, with the following statement of the progress which the fever made*.

The persons on whom this fever fell with peculiar violence, slept in the square apartment, or cabin I, immediately before the gun room bulk-head, or partition Q Q, and close to the main hatch, No. 4. The midshipmen, assistant Surgeon, and clerk, messed in a cabin directly opposite, H, and slept immediately over and in the vicinity of the hatch, No. 4. On them the fever fell likewise with great violence; none escaped an attack, and five out of eight died. The boatswain, his wife, and child, lived in the apartment K: they were all

* The sketch for illustration has not come to hand, but we have thought it best to preserve the references. — Ed.

attacked, and the two last died; the first recovered with much difficulty. The carpenter and his wife inhabited the cabin L: they both died; the latter early. Her case was a complicated one; therefore I am uncertain whether it arose from the same cause as the rest: she was in a puerperal state. All these cabins were much exposed to the effluvium issuing from the hold, by means of the direct communication to it through the hatchway, No. 4. The individuals to whom the cabins J and M belonged escaped. One was the gunner's; this officer slept and lived chiefly on deck. The other cabin belonged to the captain's servant, a black; he lived chiefly in the captain's cabin, D: he had, however, a trifling indisposition, which was so mild that it is scarcely worthy of notice. The captain, his son, and the Surgeon, were attacked in this succession: in them the fever appeared extremely mild; this will be accounted for. It may be interesting to remark, that no officer who lived behind the bulk-heads, a a, suffered an attack, except the three last named. Their illness can be readily accounted for, on the supposition of marsh miasmata existing; and that they could not well escape, will be seen from the construction of the vessel.

Ships in the West Indies ride or lie at anchor with the fore-part or *head* to windward; consequently, the air will be driven from the *head* to the aftermost part or *stern*. We shall therefore see, by the annexed diagram, representing an horizontal section of the Childers, how the air can finally escape from below. The air must pass along the passage A A; and when the anterior door is half open, the foul air arising from the hold and between decks must go into the Surgeon's cabin, B: part of the air escaping will proceed on to cabin D, where it must make a complete sweep, before it escape up the hatchway No. 1. When the passage door, A A, is perfectly open, the captain's cabin, D, will feel the full force of the miasm, though in somewhat of a diluted state. Hence, from this circumstance, may we account for the captain and his son being attacked with fever before the Surgeon. In the same manner may we account for the inhabitant of cabin C escaping, by the air passing into the captain's cabin, and making its exit, as already stated. Independent of this, the passage and hatchway No. 2, immediately opposite cabin C, will have considerable influence in attracting any foul air, and giving it an exit out of the vessel. The gun-room, E E, is so completely shut out from all communication with the fore-part, that scarcely any air could find admission, except through its own sky-light, No. 3; this air, therefore, must be perfectly pure.

The cabins F, G, are likewise so perfectly shut out from all communication with the between decks, and passage A A, that no effluvium, but in a most dilute state, can possibly enter. Therefore it will not excite our surprise to learn, that no officer belonging to these cabins, C, F, G, ever suffered the slightest attack of fever.

It may be proper to observe, in order to prove the non-existence of a typhoid contagion in this vessel, that at the time the occupiers of the apartments B, D, H, I, K, L, were attacked, no sick person slept on the same parallel or deck; the sick were all on the deck above, in a well ventilated apartment. Except an officer or two, and one or two women, all the sick, during our stay at Trinidad, were accommodated on the upper deck. Any effluvium, therefore, issuing from the bodies of the sick, must have descended through the hatchways 1, 2, 3, 4, and 5, to have made the selection it did in these cabins, and after having its strength in some degree diluted, by passing through the common atmosphere. If disease were the offspring of filth, it did not arise from the bodies of the sick, their crowded state, their secretions, or excretions. Though we had a great number sick in this vessel at once, yet she was never by any means in a crowded state. The principal part of the sick were on deck; consequently the apartment was well ventilated. This mode of distribution admitted of a greater space for the few sick that remained below, and of a constant change of air between decks.

It will, perhaps, be superfluous to advert to the non-identity of fevers, after so many pens having been employed to show the medical world the existence of a variety. After a Blane, a Mosely, a Hunter, a Chisholme, and a Johnson,—with a numberless host of fugitive writers in the various periodical publications,—it will, I fear, be both fruitless and presumptuous in my requesting indulgence on this subject.

Having, I trust, succeeded to show, that the fever which existed in the Childers was not at any time contagious, I shall attempt to prove, that two species of fever are to be frequently met with in this country, neither of which is contagious. One species arises from vegetable putrefaction; and the other from no definable or ostensible cause, beyond pure excitement, as far as our present knowledge extends. That the last species, which terminates its course, when fatally, in *black vomit*, does not arise from vegetable effluvium, in any state of decomposition, I shall endeavour to make evident.

I trust it will be admitted, that the fever designated by Chisholme Bulam, is not indigenous to every tropical

situation. Many spots on the surface of the globe within the tropics produce violent febrile actions, and terminate rapidly in death, without the presence of any thing like *black vomit*. Dr. Johnson is the first writer, if I am correct, who has recorded the existence of black vomit in the fevers of the East. Even there it would appear to be very limited in its range. His invaluable Work confines this peculiar symptom to Edam. I presume he was never a witness to this symptom, in that country, or at Edam; I am, therefore, induced to suppose, some misconception may have arisen with regard to this peculiar symptom, even here. At a future period, should it be considered necessary, I shall attempt to show how such a misconception might have originated.

I have been credibly informed, by Practitioners of great observation, who have resided in the East Indies many years, that black vomit is never witnessed there; yet *remittent*, bilious remittent, or marsh fever, is as violent there, and as rapid in its destructive progress, as in any part of the world. Now, if an identity, why is this peculiar and almost always fatal symptom, black vomit, absent in the fevers of India? If they be all of the same family, why this great deviation from Nature's laws in that country? These facts go far to establish a variety. The small-pox and measles obey the same laws in every situation or season, notwithstanding the very modified condition in which we see these diseases. Their rise, progress, and termination, are obedient to fixed and immutable laws. Had an identity existed, we should have recognised more frequently, in epidemic seasons, all the phenomena ascribed to these fevers. In the number afflicted with fever in the Childers — to the amount of seventy, at least — we had but one instance of black vomit; and even in this there was something mysterious, therefore requiring an explanation. This peculiar symptom occurs in Mr. Baxter, acting purser, who joined from the flag-ship on the 20th of August, the day we left Trinidad for Barbadoes; and it is recorded on the authority of an assistant Surgeon, who was himself at the time dangerously ill. Mr. B. was much alarmed at the prospect presented him on joining; he sickened almost immediately, and died in less than five or six days. There was scarcely time for marsh miasma or contagion to have acted here; and he may be said to have fallen a victim to his own fears. The fever which caused this young man's death was evidently peculiar, being the only individual who had black vomit, and the only new-comer into the vessel. I was a considerable time puzzled to account for this singular fact, this *unique occurrence* in the Childers. The Doctor,

however, assists me in the development of this mystery, at page 150 of the eighth volume of the Medico-Chirurgical Transactions, by relating the history of two Creole ladies, who inhabited an insulated house in Bridgetown, &c. Mr. B. was, therefore, a new subject. Miasm had not time to operate; fear did, which produced disease different from that induced by the common remote cause in the Childers.

I hope the Surgeon of the flag-ship, for whose zeal I have every respect, will not feel offended at the liberty I take, in stating what circumstances I know relative to the fever which appeared on board that ship on first coming into this climate. The occurrence of fever here is so much in point, that I cannot well avoid this opportunity of giving a statement of it. If I have made any misrepresentations, I am sensible they will be contradicted, and I shall feel happy in having them corrected.

Experience has repeatedly proved, that marsh miasm is soon rendered harmless by passing over a small extent of water. This was exemplified at Walcheren, in the late unfortunate expedition. In a series of observations with which the public have been favoured, it is ascertained, with great precision, how far it can efficiently extend. By these observations, it appears that marsh miasm is perfectly innocent at 3000 feet from the land, though the season in which they were made was about the same temperature as in the West Indies, during the winter solstice.

The flag-ship anchored early in March, 1816, at Barbadoes. Soon after a fatal fever occurred, and dissolution was in every case preceded by black vomit: when I say *every case*, I am almost certain that I am correct.

The anchorage at this place, for ships of war of the flag-ship's magnitude, is, on the smallest computation, a full mile from the nearest land—a distance of 5280 feet; notwithstanding which a fever was engendered, at a time when no sickness existed on shore, or in the rest of the squadron. The crew were not exposed more than that of the rest of the shipping; and even those affected with fever had not been more exposed than the rest of the officers and men. It is likewise evident, that the crew could not have been subjected to the influence of marsh miasm, in consequence of the distance which that ship lay from the land. This circumstance is almost of itself sufficient to give strong reasons for suspecting that fevers do not arise from the same remote cause, and do not possess an identity, within the tropics. It is an observation, also, of a Physician of great discernment, who has resided in Barbadoes many years, that fevers of the intermittent type are not the legitimate offspring of this

island, yet in similarly low situations fevers of this type are frequently seen. Mariegalante is an instance of this fact, without referring to the many writers on the febrile diseases of India. The banks of the Ganges are low and swampy;—agues and remittent fevers, from the mildest to the most aggravated form, are of daily occurrence there;—yet black vomit is never noticed as a symptom.

It will be perceived, from what has been stated, that the noxious exhalations, or whatever produced the fever, could not have extended from the shore to the flag-ship, in consequence of the distance. We shall see, by the following statement, with which I have been favoured, whether such exhalation had been engendered in that ship. "The flag-ship had her hold clean swept, washed, well ventilated, afterwards white-washed, and thoroughly dried by means of stoves and windsails, in the months of September, October, and November, 1815, previously to the stowing of the hold. No precaution which experience had suggested, as the most probable means of ensuring health, was neglected. It was the constant and unwearied attention of the officers, while that ship remained on this station, to regard the hold as ever hatching the ova of disease: therefore every care was devoted to the keeping of the hold clean, dry, and well ventilated; without such precautions, they considered health to be held on a very uncertain tenure." From what has been stated, it will be seen that the interior of this ship, when she left England, must have been in a state of perfection, not to be excelled by any vessel of war; and, with the ideas which the executive officers entertained, it is very improbable that filth could be readily generated here. We may observe, at the period when disease appeared on board the flag-ship, scarcely four months had elapsed from the period when the hold was stowed: therefore, had less attention been paid to cleanliness than what is above represented, sufficient time was scarcely permitted for the accumulation of filth to produce such violent effects.

From the above facts it may be presumed, that the fever in the flag-ship, in March and April, 1816, did not arise from vegetable matter in any state of decomposition; and I trust it is equally evident, that it is not related to the family of intermittents or remittents.

Had this fever been even produced by the same causes which bring on intermittents and remittents, we ought, at least, to have met with the mildest instead of the most aggravated form of disease in the flag-ship, similar to what the Doctor expects shall prevail in the more elevated situations. Had there been kindred diseases in the flag-ship and Childers, that which prevailed in the latter, by this reasoning,

should have exhibited the most aggravated type, and terminated in black vomit. We see the clean ship, however, exhibit the most malignant form, while the one that has been proved to be foul did not, but in one case of fever, show this peculiar symptom — BLACK VOMIT. No doubt ever existed, in any mind unprejudiced, but that an *accumulation of filth was the cause of fever in the Childers.*

I trust strong, if not satisfactory reasons, are given, to conjecture at least the existence of a variety of fevers in this country, from the absence of black vomit in the marsh fevers of India — from its appearance in situations where no putrid exhalations could possibly have existed — and from its not appearing but in one patient, *a new-comer*, in the Childers, *when an artificial marsh is proved to have existed in the hold of that vessel.*

III.

On the Croton Oil. By HENRY PERRY, Surgeon.

SINCE the commencement of the present century, innumerable have been the medicines which have intruded themselves upon the notice of the medical Professor. Each has had its turn in holding a place in the good opinion of the prescriber, till another, possessing more active virtues, has caused him to discard, perhaps, a favourite material, in order to give room for a new, and perhaps a fashionable medicine.

The object of the present paper is briefly to advert to a medicine recently introduced to notice. That the croton oil, until lately, has *never* been employed, is not here alleged, since we are informed that it formerly held a place in the list of formulæ, but was discarded, on account of its *too* violent action. It has again found its way into the market, and is held forth as a most valuable medicine. That such is the case, I am thoroughly convinced; and in order to make the public sensible of this, the present mode has been adopted. — A remedy holding so high a place in the estimation of men of eminence in the metropolis, with whom I have the honour of being acquainted, and by whom I have seen it frequently prescribed with decided benefit, cannot certainly be too soon circulated. I am disposed to think, that in the country it has hardly been heard of, as several provincial friends, through my interference, have been disposed to order it, who were quite ignorant that such a medicine was in existence. Perhaps it may be asked, How is it that a medicine now so warmly eulogized should have sunk into such oblivion? To this I would answer, " that its proper dose was never ascertained; consequently, being prescribed incau-

tiously, its effects were prejudicial generally." And how probable is it, that many a valuable article which once held a place in the materia medica has been discarded, merely because the ignorant prescriber was unacquainted with the exactness of quantity in which it should have been administered? To imagine that all those medicines are inert which are now laid aside, would, under these circumstances, be presumptuous; and does it not behove us to lend our encouragement to the assistance of an individual, whose labours are stimulated by anxious inquiry? To intimate to those who are daily in the habit of employing it, either its properties or doses, would justly be deemed folly; yet to those who are unacquainted with the article in question, and consequently *both*, must the attention of the present writer be directed. The oleum crotonis is obtained from the nuts of the croton tiglium; and sold by Mr. A. Short, of Ratcliff Highway, London, through the medium of the principal Druggists. Its action is directly *purgative.* If given in half minim doses, it generally produces about six evacuations, without either pain or other inconvenience; yet should very obstinate costiveness prevail, and other remedies have been tried, such as the sulphate of magnesia, submuriate of mercury, or the compound extract of colocynth, it may *then* be prescribed in two minim doses, which will be found to answer our expectations fully. It is generally formed into a pill with the crumbs of bread, and I see no objection towards recommending the adoption. That the croton pill will be found in the shop of the Apothecary an invaluable one, I have not the smallest doubt; and should these remarks at all tend to establish its use, my efforts will be more than repaid.

IV.

Case of Sanguineous Tumour. By J. G. De Merveilleux, Surgeon, Stamford; Member of the Royal College of Surgeons in London, and Surgeon to the Royal South Lincoln Militia.

Jane Jones, aged eight years, applied to me, August 2d, with a tumour situated over the insertion of the deltoid muscle. It was about the size of an egg, having a bluish appearance; and seemed to consist of several cells or cysts, containing a fluid, which might, by pressure for a few minutes, be dispersed, but gradually returned again when the pressure was removed. According to the account her mother gave, it arose from a blow on the arm about two years since; and was, when first noticed, not larger than a nut, but has been gradually increasing since that time. It was not

painful. I made a small opening with a lancet, and evacuated about two ounces of fluid blood, without diminishing, in any sensible degree, the size of the tumour. Adhesive plaster and pressure with a compress were employed, and the incision healed.

Aug. 5th.—The tumour being in every respect the same, I passed a seton through it, when the same quantity of fluid blood was discharged as in the first instance. The cavity in a few days began to secrete healthy pus; and in the course of three weeks the seton was withdrawn, the cavity obliterated, and the orifices healed.

The late ingenious Mr. John Bell, in the third volume of his Principles of Surgery, page 268, speaking of these tumours, says: "Often I find blood poured out in various parts of the body, either into sacs, or into cavities, or into cellular substance, without being matured into pus. Mere inflammation, with some indisposition or weakness in the structure or actions of the part, occasions this: and I am persuaded, that often in old sacs, when the blood continues fluid for months, or even years, it is poured out by a sort of secretion, as the menstrual blood is secreted from the surface of the womb; and is circulated by a slow reabsorption, which keeps it always fluid, though enclosed in a firm sac, from which you cannot repress it into the veins, which are yet capable of reabsorbing it."

Again: "Among various examples of this general fact, some are cases of bloody effusion, where we can only, by provident evacuations, moderate that vascular action by which it is produced; others are cases by which we can, by obliterating the sac into which the blood is secreted, stop the source of local disease."

I am induced to send the above case to the MEDICAL REPOSITORY, hoping it may not be uninteresting to the reader, as such tumours are of rare occurrence, not having met with a case of the kind before, in the course of my own practice, or that of my medical friends.

V.

On the Administration of large Doses of Gamboge. By EDWARD THOMPSON, Member of the College of Surgeons*, Whitchurch.

HAVING lately had an opportunity of seeing the effect of large doses of gamboge, I take the liberty of calling for a

* In a former paper of Mr. Thompson, (see the July Number of the REPOSITORY,) he is called, by misprint, Member of the College of Physicians: and the word rheumatism*us*, in the Latin quotation, is printed instead of rheumatismo; imprudent*um*, also, for imprudentem.

moment of attention respecting its exhibition.—A person sent for me to attend him, a few weeks since, who was suffering from paraplegia. His limbs, before I saw him, had been much distended, from water being effused; for which he had been recommended to take pills, made up by a *woman*, famed as being skilful in the cure of dropsy. The medicine had had the effect of removing the liquid; but the lost power did not return with the lessening of the swelling, as he was strongly given to believe, which made him apply to me. Power was restored to the limbs, through the medium of blistering, cupping, &c. During the progress of the cure, I directed him to take frequently of the physic prescribed by his late *female Physician;* its action, apparently, being that of a drastic purgative, operating without producing griping in the slightest degree, freeing the bowels more effectually, and with less uneasiness, than I had ever observed from any other purgative, with the exception of vomiting, which, he said, was so easy, that he did not care for it. I procured, after strong pressing, one of those celebrated pills, which, the woman told him, never failed in curing the dropsy. It appeared to be formed altogether of gamboge, held in mass by some kind of oil, probably castor oil. It weighed three grains and a half; and, allowing the half grain for the oil, which is perhaps too much, the pill contained, therefore, of gamboge full three grains. She took eight of those pills at a time, taking at a single dose not less than *twenty-four grains.* This is the smallest dose she is (I am told) in the habit of giving; and in confirmed dropsy far outstrips it, regulating the quantity by the urgency of the symptoms. I examined the specimen as minutely as circumstances would admit, and feel confident that nothing goes into the composition but gamboge and oil.

Some of the readers of the Repository will probably express their opinion with respect to its action in hydropic cases. We are, perhaps, in this country, and at this time, a little too cautious in prescribing active remedies, and not unfrequently lose by our timidity. To go so far as the Physicians in Italy have gone, would be too bold a step; but in avoiding one extreme, we border too much on the other.

VI.

Case of Strangulated Femoral Hernia, attended with some uncommon Circumstances. By Christopher Aldworth Bull, M. D., one of the Surgeons to the South Infirmary, Cork.

Friday, Nov. 10th, 1820, I was requested by a Physician of this city to visit Mary Carroll, æt. 63, a poor woman

residing in the North Liberties, whom he represented as labouring under symptoms of strangulated femoral hernia, which he believed would require immediate operation. He informed me, that he had been called to see her on the Saturday preceding, in consequence of obstinate constipation, for the relief of which he had administered various purgative medicines without effect. This, with other symptoms, led him to suspect the existence of hernia; and accordingly, on examination this day (Friday), he discovered a tumour in the right groin, close to the femoral ring, which the woman said she had had for some years past, and the contents of which she was able to return by continued pressure, when she lay in the horizontal position, until the period when her present symptoms commenced. On discovery of the tumour, the Physician, convinced of its nature, had recourse to the taxis, and found that he succeeded in reducing some portion of its volume. I learned from the patient, that since Dr. —— had used the pressure, and returned part of the tumour, she had felt, *comparatively*, little pain or uneasiness; the vomiting, and other distressing symptoms, having ceased. On examination, I found a hard and moveable tumour, about the size of a pigeon's egg, situated a little to the outside of the crural ring. The abdomen was somewhat swollen, but not painful on pressure; and she appeared restless and feverish, with much anxiety of countenance, for which I thought the obstinate constipation sufficiently accounted. She did not complain of the slightest degree of pain from regular pressure of the tumour and attempts at reduction; and had I not been informed of the previous symptoms, I should have instantly pronounced the tumour to be an enlarged lymphatic gland. I was now, however, led to believe, both from the patient's own account, and the relief experienced after the taxis, that an intestinal and omental hernia had existed; that the former had been reduced by the efforts which were previously made use of, while the latter remained, perhaps, adhering to the sac, and rendered thick and callous from time, so as to resemble to the touch an enlarged gland. Not considering an operation justifiable under such circumstances, and finding that the patient could not procure the necessary comforts and attention which her situation required, I requested her friends to have her removed, as soon as possible, to the Infirmary, which was done on that evening. At eight o'clock, P.M., the Physician first in attendance visited her with me at the Infirmary; and we found her in much the same state as in the morning, except that she complained of much difficulty in voiding her urine, a very small quantity of which came off on the introduction of the catheter. We directed copious emollient enemata to be administered during

the night, and the abdomen to be fomented frequently with warm flannels, wrung out of a decoction of chamomile flowers and poppy heads. A solution of sulphate of magnesia in infusion of roses was given every hour, in the dose of a wine-glassful.

Saturday, Nov. 11th, ten o'clock, A. M. — We found that the remedies used during the night had produced no effect, the bowels continuing unmoved, though the cathartic solution was retained by the stomach. The abdomen was now become tense, swollen, and painful; pulse small, frequent, and irregular; and she appeared sinking rapidly, though she complained only of a sense of fulness in the belly, which, she said, was much increased by the medicine she had taken during the night. The inguinal tumour still remained in the same state as yesterday. At twelve o'clock (eighth day of the disease), she expired, without appearing to suffer pain.

Dissection. — Four hours after death, the body was examined, in the presence of three Surgeons and the pupils of the Infirmary. On removing the common integuments, and some adipose matter from the surface of the tumour, we believed it to consist entirely of an enlarged lymphatic gland; but on carefully dissecting away the gland from its attachments, we found beneath it a small hernial sac, quite empty. Before proceeding further in the dissection of the sac, we thought it prudent to examine its neck internally; and on exposing the intestines, we found the smaller ones, particularly the ilium, bearing the appearances of inflammation; flakes of coagulable lymph lying dispersed over their surfaces, especially towards the termination of the ilium, where we now discovered a *diverticulum* or portion of the diameter of this intestine, as if drawn or pinched out to about the depth of three quarters of an inch, and bearing evident marks of having suffered constriction for some time. It was of a dusky red colour; by no means inclining to gangrene, but considerably thickened: it lay directly opposite the neck of the hernial sac, so as scarcely to leave a doubt of its having been a part, at least, of its contents. The intestines, both above and below this point, were distended with a thin watery fluid, much of the enemata having been retained. On examination of that portion of the intestine where the diverticulum existed, I found the canal pervious, and sufficiently large to admit a rectum bougie of middling size. We found also a portion of omentum adhering to the circumference of the neck of the sac, but none whatever contained within it.

It is a remarkable fact, that in cases similar to the present, the strangulation of part *only* of the diameter of the intestine has been sufficient, even after reduction, to prevent the

passage of fecal matter through that part of the canal. Quære, Does this arise from a degree of paralysis of the muscular fibres of the intestine, produced by the stricture, and depriving them of the power of performing the peristaltic motion; or is it an effect of the inflammation? Mr. Lawrence, in his Treatise on Ruptures, page 36, enumerating the symptoms of strangulation, says: "The former symptom (*i. e.* want of fecal evacuations) may not be so clearly marked, where a part only of the diameter of the gut is strangulated; but it will often occur to as great a degree in that case, and will be *equally insuperable* by purgative medicines, as where a complete fold of intestine is included." Morgagni (De Causis et Sedibus Morb. xxxiv. 15) mentions a case, in which a part only of the diameter was included, where the stools were *not* suppressed, yet it ended fatally. The same author (ep. xxxiv. art. 18) says a patient of his died on the sixth day, after constipation continuing for the whole time; the entire diameter of the intestine here was unobstructed, the protruded part being merely a diverticulum. A case almost precisely similar to the one I have related, may be found in the London Medical Observations and Inquiries, vol. iv. p. 355.

VII.

Observations in Practical Pathology. No. III. Case of Chronic Visceral Inflammation, accompanied by Anomalous Symptoms; with a Detail of the Organic Lesions exposed on Dissection. By James Kennedy, M.D., of Glasgow.

Isabel Stewart, whose case forms the subject of this paper, died unmarried, in the fortieth year of her age. Her person was stout, her stature middle-sized, her temperament sanguine, her habits active and virtuous. She had passed the greater part of her life as a domestic servant; and, till the commencement of her last illness, the tenour of her health experienced few interruptions. Five years ago, indeed, she was attended by me, in a synochal fever, which purgatives and venesection subdued, in the course of a few days.

During the spring and summer of 1818, while residing in a distant parish, she was afflicted with a series of complaints, represented by herself as analogous to those which subsequently brought her under my observation. By the middle of autumn, however, her recovery was nearly consummated, under the administration of a systematic treatment. Early in winter of the same year, on her return to

Strath-Earne, she again became ill, and required my professional assistance.

Dunning, Nov. 28th, 1818. — This day I visited the patient, and found her in a state of intense suffering. She deduced the relapse of her disease from the effects of recent exposure to rain, cold, and the nocturnal air. Its chief symptoms were — a sharp, tensive, rapid (120) pulse; hot, parched skin; obstruction of the cutaneous functions; accelerated, fitful respiration; acute and constant pain, with a sense of palpitation, in the epigastric region; furred tongue; foul, dry mouth; insatiable thirst; inordinate desire of aliment; suppressed menstruation; tension of the abdomen, particularly of the inferior portion of its left compartment; constipated bowels, with urgent tenesmal excitations; epistaxis in frequent paroxysms, by which she had lost a great deal of blood; muscular spasms in both the lower extremities; excruciating pain through the whole course of the left thigh, leg, and foot, which were subjected to fits of violent convulsive jactitation; incapacity of reclining on the corresponding side; general and unremitting disquietude; incessant wakefulness.

Depletory and sedative practice being indicated, one of the brachial veins was punctured, and six ounces of blood detracted from it, with instant relief of the pulmonary oppression. Friction of the abdomen and left limb with strong ammoniated liniments, containing proportions of opium and camphor; cathartics; semicupia; light nourishing food, in small, frequent portions; and drink acidulated with the muriatic acid; were also prescribed.

29th. — Respiration continued free since the bleeding. Serum in excess was separated from the blood, which otherwise appeared natural. Several alvine dejections, consisting of reddish brown, scybalous, offensive matter, were obtained. The urinary discharge was wine-coloured, opaque, and sedimentous. Hæmorrhage from the nose had not returned. The state of the left limb was unaltered, and, in general, the patient's condition little improved. Perseverance in the use of frictions, purgatives, and acidulous drinks, was again enjoined.

Jan. 2d, 1819. — During the lapse of last month, various modifications of these and similar remedies were employed, but without permanent advantage. The woman's bowels never acted, except by the impulse of medicine. Her appetite was still depraved; her excretions unhealthy; her respiration irregular, often distressful. The pain of her abdomen and left inferior extremity experienced few remissions; sometimes it was agonizing. Its irritation deprived

her of rest, and wasted her strength. — About the 30th, the catamenial discharge ought to have appeared; but it was replaced by a profuse nasal hæmorrhage, which could with difficulty be repressed. Her liver was now discovered to be greatly enlarged, and a circumscribed tumour occasionally distended the epigastrium. Her feet and legs, moreover, frequently became œdematous, especially towards night. Repeated venesections, blisters to the abdomen, a pitch-plaster on the thorax, and an opiate one over the internal face of the affected thigh, were directed to be opposed to these symptoms; and the operation of the medicines assisted by vegeto-mineral purgatives, frictions on the hepatic region with blue ointment, and flannel bandages to the limbs, together with an antispasmodic and emmenagogue mixture, containing castor, cantharides, and sulphuric ether.

Feb. 9th.— For the last five weeks, the prescribed remedies were perseveringly administered. Under their use, however, the disease was not more than merely checked; it certainly had not become retrograde. Epistaxis in that period twice supervened, and had nearly resisted abstraction of blood from the jugular vein, and the introduction of an astringent plug. The patient's bowels, moreover, were still inert; her appetite craving; the epigastrium painful; the liver tumefied; respiration at intervals oppressed; the left limb occasionally convulsed. — Advice was now given to place twenty leeches over the right hypochondrium, and, on the bites ceasing to bleed, to cover all that region and the epigastric with a large and active vesicatory; to insert a seton in the left leg; also the bandages, purgatives, antispasmodics, mercurial inunctions; and, instead of the opiate plaster, frictions with the original liniment, comprising a proportion of digitalis, to be continued.

March 16th. — Since last report, the abdomen was twice leeched and blistered, and venesection in the arm practised, for relief of an anginal paroxysm. Mental agitation induced hæmorrhage from the nasal vessels, but it yielded to immersion of the head in cold water. There was still an obscure sense of pain and distention in the abdomen; but it had ceased to be distressful, since the appearance of a slight ptyalism. The liver felt large, without being the seat of uneasiness. For some time past, the epigastric tumour had disappeared. Notwithstanding the uncertain action of her digestive organs, and occasional spasms of the left limb, my patient now felt herself comparatively well, and encouraged the most sanguine anticipations of recovery. The issue in her left leg, being inconvenient and unprofitable, had been allowed to heal. She was now advised to regulate

her bowels with suitable diet and mild laxatives, and to employ such of the former remedies as her circumstances should require.

April 24th.—Assisted by such means, my patient's convalescence made apparent progress, till the 18th of this month, when she removed to her sister's house, distant about three miles. On that occasion she underwent more fatigue, and was longer exposed to a keen vernal wind, than her person was yet able to endure. Her shoe had also injured her left foot, while she made an attempt to walk. On the 20th, I found her in a more violent paroxysm of her malady than I had ever witnessed. There was no epistaxis, but her left foot had been seized with phlegmonous erysipelas in a very severe form.—Abstraction of three ounces of blood from the arm gave immediate relief to the organs of respiration. Thirty leeches were then placed on the hepato-gastric portion of the abdomen, and directions left to cover that space, on the opened vessels ceasing to bleed, with an ammoniaco-mercurial plaster; to keep the left limb cool, and in the horizontal position; and to employ a refrigerant regimen, with purgatives and the pectoral mixture.

Five days afterwards, with the aid of poultices, an abscess was formed on the left instep, and, on being punctured, threw out an ichorous pus. In the interval, several paroxysms of laborious breathing and of pains shooting through the abdomen supervened. Emaciation of the patient's person was great; her pulse irregular and tumultuous. Her left limb also remained swollen and painful, although exempted from its original convulsive motions, which never more returned.—Directions were now made, to employ inunctions of the abdomen, twice a day, with strong camphorated mercurial ointment; to place an ammoniaco-mercurial plaster on the thorax; and to stimulate the bowels with successive doses of calomel and opium.

May 12th.—Ptyalism, in a slight degree, had existed since the 30th, without at all influencing the disease. Throughout its prevalence, the abdominal tension was not relaxed, nor the pain abated; neither were the anginal paroxysms less frequent or severe, while the circulation continued to be agitated, the digestive process imperfect, and anasarcous effusion had begun rapidly to distend the inferior extremities. At the patient's particular desire, therefore, the mercurial inunctions were altogether discontinued. She was now instructed to moderate the dyspnœa with a mixture, including equal parts of the ammoniated tincture of opium and that of black henbane; to rub the abdomen with a strong ammoniated liniment, combining digitalis, camphor, and opium;

to apply bandages to the lower extremities; and to keep the bowels free with alternate doses of castor oil and the compound infusion of senna, to which a proportion of the spirit of nitrous ether was superadded.

June 3d.—By such means we were enabled to palliate the more urgent symptoms; but there seemed to be an hourly loss of strength, and extreme emaciation. Extravasated lymph, in a short space, was progressively diffused through the abdomen and thorax, the functions of whose organs it greatly impeded. Unexpectedly, however, the ulcer on the foot healed. On the 20th and 28th, the patient had exquisite paroxysms of dyspnœa, which were moderated by draughts of sulphuric ether, digitalis, and opium. During these, her pulse was often 150, small, and wiry. Her dissolution now approached. This day, nothing could alleviate her sufferings; she was evidently moribund. Next morning early, she died.

Dissection.—Thirty hours after death, the body was opened by myself, with the assistance of Mr. P. Salmond, my pupil, and of Mr. James Roy, an intelligent young friend, who had lately completed his medical studies at Edinburgh. Notes of the various lesions were accurately taken during the progress of dissection, and are now enumerated in the subsequent history.

External Appearances.—The skin was every where dry, and rough with those squamous crusts which become consequent to suppressed perspiration. On the cardiac region was a cluster of purple spots, irregular in their distribution, and unequal in their size. The glandular structure of the mammæ was, in a great measure, removed by morbid absorption. The face, arms, and superior half of the trunk, were much emaciated; the abdomen tumefied, and greatly enlarged; the lower extremities, especially below the knees, distended with lymphatic infiltration.

Having opened the abdomen, we removed sixteen pounds of chocolate-coloured serum from its cavity. Three pounds and a half of a similar fluid were then, in the usual manner, withdrawn from each of the thoracic departments. This fluid was ropy and inodorous; its consistence thicker than that of healthy lymph.

Thoracic Organs.—Exposure of these, by removal of the sternum and cartilages of the contiguous ribs, discovered numerous adhesions, connecting them to each other and to the adjacent parts. Some of these adhesions were spongy, some membranous, some round, some broad and flat.

Pleura.—This membrane, in all its parts, was preternaturally thick, and marked with the traces of pre-existent

inflammation; its surface was, in many places, covered with a delicate intertexture of vascular net-work and coagulable lymph.

Mediastinum. — The contents of the sternal mediastinum were disfigured by disease; its cellular membrane absorbed. In the site of the thymus gland was found a kidney-shaped substance, about one inch long, half an inch in breadth, and proportionately thick. This substance possessed a compact texture; its colour was dingy white; its surface rough. An incision exposed, in its centre, a globular mass, the matter of which presented much resemblance to inspissated pus. Many of the absorbent glands situated in the dorsal mediastinum were enlarged; the denseness of their structure was preternatural. Being cut into, they were observed to contain a whitish, untenacious, concrete substance, intermingled with a small proportion of puriform matter.

Œsophagus. — The thoracic portion of the œsophagus had its coats thinner than is natural. A glairy, greenish yellow, muculent deposition, was spread over its inner surface.

Trachea. — The internal membrane of this division of the pneumonic system was thickly coated with a frothy mucous exudation, through which many globules of air were interspersed.

Bronchial Glands. — Their colour was lighter than it is in health; their texture had also become more dense; in some, it approached that of cartilage. Many of them were enlarged, and contained an ash-coloured substance, thicker in consistence than honey.

Lungs. — These were adjoined to the circumvesting surfaces by means of numerous and strong adhesions. Their attachment to the diaphragm was extensive and intricate; it required careful dissection to disengage them from that organ. Inky spots were irregularly distributed over their sternal face; their size and weight were excessive; they could with difficulty be inflated. Their texture was more solid than it appears under the absence of disease; in many parts they were completely hepatized. When incided, the pulmonary cells were found replete with frothy mucus, their vessels with dark grumous blood; their intercellular septa were unusually thick and compact. Tubercles, many of which had acquired the size of a cherry, were interspersed through their substance. On being divided, these masses exhibited a fibrous contexture; their colour was not different from that of a muscular part, after evacuation of its blood.

Pericardium and Heart. — Although the corresponding surfaces of the heart and its investing membrane possessed signs of having been sufficiently lubricated, we were unable

to discover any trace of the pericardiac liquor. The structure of the pericardium itself seemed thicker than is natural, and its surface was adjoined to the contiguous textures by many adhesive bands. The heart, aorta, and its thoracic branches, preserved all the characters of their healthy state. The auricular and arterial valves were large and strong, and beautifully distinct.

Diaphragm. — With the exception of its having acquired an unusual flaccidity and paleness, and its adhering intimately to the lungs, the thoracic face of the diaphragm retained only some unimportant traces of morbid change. Its abdominal face was also pale and rough; but in several parts exhibited patches of vascular injection, representing vermillion network. Parallel to the middle of the left hepatic lobe, and near its anterior margin, was found a black shining tubercle, large as a filbert, and of a globular form. When divided, the internal composition of this substance could not be distinguished from that of an undiseased kidney. The margins of the diaphragmatic apertures, both aortic and œsophageal, were remarkably thickened, and cohered with the permeant organs by means of intimate morbid attachments.

Abdominal Organs. — On reversion of a triangular flap of their anterior wall, these organs displayed a promiscuous assemblage of structural lesions. Numerous adhesive bands, partly transparent, partly formed of a pappy straw-coloured substance, connected all the abdominal viscera to each other, and to their peritonæal membrane, while the phenomena consecutive of hydropical effusion were every where apparent. The general contour of the parts, indeed, exemplified that state from which the pre-existence of great vascular excitement can always be retraced.

Peritonæum. — Through all its involutions, the peritonæum was thickened, rough, opaque, and pulpy; innumerable florid vessels, in many parts, reticulated its surface. It retained very evident marks of having been extensively inflamed. The mesentery and mesocolon were similarly disorganized. The mesenteric glands had lost their granular nature; their colour and texture exhibited great affinity to that of cartilage.

Omentum.—Its follicular structure was destroyed, and two-thirds at least of its natural size removed by absorption. Its remains formed an oblong inorganic mass, nearly two inches in thickness, condensated in texture, overspread with vascular reticulations, and adapted in shape to the anterior face of the great curvature of the stomach, to which it closely adhered.

Liver and Gall-Bladder. — Great enlargement of the liver had been induced. It weighed eight pounds avoirdupois,

and was intimately attached by bands of organiform lymph to the stomach, the intestines, the peritonæal lining of the abdomen, and particularly to the diaphragm. Its colour was dark-purple; in some places nearly livid. Its substance was preternaturally firm, but without induration. An azure band, one inch and a half in breadth, traversed the anterior and inferior margin of its left lobe. The left extremity of this lobe, by means of a flexure resembling the aortal arch, was prolonged downwards in the form of an appendix, having the dimensions and shape of a small human heart. This singular malformation possessed all the characters of the parent viscus, and penetrated between the stomach and intestinal convolutions, where it was comprised in an appropriate receptacle, consisting of peritonæum and adhesive membrane. The gall-bladder contained one fluid ounce of dark olive-coloured bile, which being placed in a tea-cup, imparted to the vessel a bright yellow tinge.

Stomach.— Removal of the superincumbent omentum discovered the stomach contracted in so many places by four distinct strictures. The organ was moreover defective in one-half of its ordinary volume. In some parts, its substance had lost a part of its usual thickness; in others, this was remarkably increased. Several concretions of imperfectly digested food were lodged within it. When examined through its parietes, these masses felt, in all respects, similar to the knobby indurations which usher in carcinomatous disorganization of a glandular part. A glairy greenish-yellow muculent deposition thickly overspread its internal coat. By the effect of permanent contraction, its œsophageal or cardiac orifice was considerably narrowed and condensed in structure; a promiscuous medley of morbid textures surrounded it. The duodenal, or pyloric extremity, was become quite scirrhous, and had its opening so constricted as to be nearly impervious.

Intestines.—The alvine convolutions were, in many parts, marked by patches of florid reticulation; the result of inordinate vascular action. Adhesive membrane united their approximating surfaces to each other, to the peritonæum, the mesentery, and adjacent textures. Irregular masses of crude alimentary matter were found in the duodenum; others, consisting of semi-indurated fæces, were dispersed through the colon; and many of both kinds were large as a hen's egg. The cœcal appendix measured only one inch and a half in length, and was cartilaginous, with its cavity obliterated. Its shape was that of a smooth pyramidal body, having a papillary point.

Spleen and Pancreas.—Both these organs were altogether

wanting. We were aware of the circumstance of their having been sometimes found displaced; and at other times, excessively small in size. Under this impression, our researches in quest of them were conducted with attentive and persevering diligence. Nevertheless, by our utmost care, not a vestige of spleen or pancreas could be detected. — "Incognitas Natura," says Riviere, "sæpe sibi cudit vias."

Kidneys. — Their adipose substance had been absorbed; their structure was very pale; their size and position natural. In their tubular tissue were many morbid cysts, full of a gelatinous matter, slightly tinged with blood. Each of the suprarenal capsules was not larger than a hazel-nut. Their textures had lost their spongy, glandular character, and were greatly condensated. Their colour was bluish-gray.

Urinary Bladder. — It contained three ounces of thick, feculent, untransparent urine; the structure of its coats was immoderately dense.

Uterus and Ovaria. — The length of the uterus did not exceed two inches; its breadth had also proportionately diminished. Its substance was firm, and condensed into a state of progressional induration. When divided by an incision, the margins of the section measured half an inch in thickness; they were compact, and altogether deprived of their fibrous character. In the upper part of the anterior wall of the fundus was an irregular depression, apparently the production of ulcerative absorption. This depression had an angular form, and penetrated through the mucous membrane of the uterus into the proper texture of that organ. Its longer axis might be half an inch; its shorter four lines. It was about three lines in depth, and contained a viscid fluid, whose colour was reddish-brown; its consistence thick as that of a glutinous mucilage. On removal of this substance, the surfaces of the void space were found to be dark as chocolate; its edges jagged; the bottom unequal. The superior half of the cervical channel was so constricted as to be impervious; and, by extinction of its rugæ, the inferior had become smooth. The triangular cavity was little more than merely distinguishable. The ovaria were not larger than a garden-pea. Their structure was more solid than it is in the natural state. When cut open, they were seen to include a minute proportion of matter bearing relation to the nature of pus, but having a sebaceous consistence. — Are these uterine and ovarial phenomena, however, to be altogether ascribed to the action of positive disease?

Common Iliac Arteries. — The abdominal aorta and its chief branches were sound in structure, capacious in volume, and occupied their natural disposition. Its iliacal extremity

terminated at the ordinary place of bifurcation, where the vascular arrangement exhibited an unfrequent form — a form which I have never seen described. The right common iliac artery retained its natural proportions and distribution. Its caliber was equal to that of the largest quill. The left was in all respects similar; but, about half an inch above the point of its separation from the right, another healthy vessel of equal dimensions was given off from the aortal trunk. These two *left iliacs* issued in this manner from the pelvis, permeated the crural arch, and took the usual direction of the femoral, so far as we had an opportunity of tracing it through the ilio-femoral fascia and textures of the thigh.

The cephalon was not inspected;* but we were the less anxious on that account, as symptoms of the encephalic functions being impaired were not at any time developed. Our patient retained the exercise of her intellectual faculties to the very close of life.

Recapitulatory Remarks. — More than one circumstance in the preceding history involve peculiarities worthy being noticed. My patient, it is probable, had originally experienced disease from the effects of general disbalancement in the nervous and vascular re-actions. The state thus induced, indeed, was removed by prompt and adequate treatment; but a ten-

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* Our operations had already been actively prosecuted during seven hours, when we were necessitated to discontinue them, in consequence of the time being arrived when the body was to be deposited in its coffin; a ceremony at which it is customary, in this country, for many of the deceased person's relatives and neighbours to assist. As an episode in the history of necrotomical research, it may be instructive to state, that this body was inspected in the presence of ten or twelve good-natured matrons and several men, all of whom seemed to be excessively edified by what passed under their review. On commencing practice in the country, I experienced an universal and resolute opposition, founded on the most ignorant and superstitious prejudices, to all my attempts at obtaining permission to examine human bodies after death. My object, however, was not to be so defeated. At first, I seized every opportunity of dissecting the lower animals; horses, cattle, dogs; and endeavoured to make my operations interesting to the spectators. When, after the lapse of many months, I succeeded in procuring leave to trace the effects of disease in a human subject; I invited as many people as chose to attend, took all possible pains to gratify their curiosity, and tried to familiarize them with seeing and handling the lifeless remains of their former associates and friends. By such means, my wishes were, in the end, gratified to their utmost extent. Young Practitioners, who cherish a predilection for morbid anatomy, may derive benefit from adopting a similar course.

dency to re-assume an injurious activity appears to have been irrevocably imparted to the nerves and vessels of the serous and mucous membranes, throughout their wide-extended distribution. Evidence, confirmative of this induction, may be drawn from the manifold and extensive depositions of the organizable principle, the numerous vascular reticulations, and the profusion of extravasated lymph.

It is also remarkable, that very small detractions from the sanguineous system seldom failed in overcoming the paroxysms of afflictive respiration; though, at the same time, the topical use of many powerful therapeutic agents — copious exsuctions of blood, stimulating frictions, vesication, mercurial inunction, assisted by active internal remedies, long and assiduously persevered in — never procured more than a temporeous interception of the disease's course.

From what peculiarity of structure or function shall we deduce the convulsive jactitations of the lower extremity? Shall we regard it as dependent on the unusual distribution of its arterial blood, whereby the nerves of that member might be subjected to varying degrees of inordinate excitement? Such an assumption may not, perhaps, be discordant with the speculations by which the laws of spasmodic action come to be explained.

Pathological anatomy, moreover, receives no inconsiderable contribution from some of these details. Among other organic transformations, they exemplify — gastric scirrhus, stricture, and diminution of volume — absolute defect of the spleen and pancreas — condensement, enlargement, engorgement of the liver, together with an excrescent appendage to that viscus — pulmonary hepatization, and a distribution* of the common iliacal arteries which, so far as I know, was never before consigned to the records of morbid or experimental dissection.

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* Early in 1819, another specimen of irregular distribution of the sanguiferous system came under my observation. It was found in a young subject who had *two* right common iliacs, and each of these possessed a caliber, equal in dimensions to that of the vessel which arterialized the textures of the opposite side. I transmitted a preparation of the parts to Professor Jeffray, by whom it was deposited in the anatomical museum of the university of Glasgow, where it is still preserved.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Fauna, Flora, and Pomona, kept at Hartfield, near Tunbridge Wells. By Dr. T. Forster. *During the Month of September,* 1821.

Sept. 1st.—Moist unsettled weather. The Tiger Lily in flower. *Senecio Jacobea, S. aquaticus,* and *S. squalidus,* still in full blow. *Agapanthus umbellatus* in blow at Clapton.

3d.—I saw to-day the Kingfisher, *Alcedo ispida,* flying across the large pond in the field.

Among the many varieties of Poppies in flower in my garden, there is one with pure white petals, but with a small capsule, like the coloured garden Poppy. The officinal variety has, therefore, not uniformly a large capsule wherever its flowers are white. I have likewise a double variety of the white Poppy.

4th.—*Adonis autumnalis* in flower. Sunflowers and Amaranths are now common. The former are abundant and of large growth this year.

10th.—The wind and rain to-day made great devastation among the plants: the taller Sunflowers and Poppies were blown down, and very few elevated stalks of any sort escaped prostration.

13th.—The yellow as well as the purple garden Hawkweed still flower. Rain came on again this evening. The corn is said to be much damaged.

18th.—Fungi begin to be common. *Boletus edulis* grows plentifully on some of the grassy banks. *B. vulgaris* is coming up in the orchard and other places.

21st.—There are three very distinct varieties of *Boletus bovinus* now common. The first is very large; the pileus reddish brown, and the pores pale yellowish, turning green when bruised. The second sort is somewhat less; the colour of its pileus being a fine ochraceous yellow, or fox-colour, and the pores bright saffron. The third kind is about the same bigness as the last; the upper part is brown, and the pores white. *Agaricus campestris* and *A. verucosus* begin to be common. *A. aurantius* were found a few days ago by Mr. B. M. Forster. Both the crimson and the brown varieties of *A. integer* are now common. The everlasting *Gnaphalium Stœchas* is in flower now in the garden.

23d.—*Mr. T. F. Forster discovered to-day a great variety

* My father has been enabled, by subsequent researches, to add upwards of forty new species to his Flora Tonbrigiensis, since its first publication.

of Fungi: among others, three or four varieties of *Boletus bovinus, B. aurantiacus, B. sejunctus,* and others; *Agaricus campestris, A. integer,* in several varieties of colour; *A. verucosus,* both the red and the brown sort.

26th.—*Tagetes erecta,* the French Marigold, in full blow.

27th.—The *Aster tardiflorus* now blooms in the garden. On the *A. Tradescanti,* though generally an earlier flowering plant, there are at present only a few flowers; in other gardens, in warm situations, about Cowden, it came into blow sooner. The *A. Chinensis,* in all its luxuriant varieties, flowers now in the cottage gardens every where. Holyhocks still common.

28th.—Many varieties of *Dahlia* are now in flower, and some of them have come from seeds sown late this last spring.

PART II.

ANALYTICAL REVIEW.

I.

Remarks on the Laws and Phenomena of Pestilence; including a Medical Sketch and Review of the Plague of London in 1685; *and Remarks on Quarantine. With an Appendix, containing Extracts and Observations relative to the Plagues of Morocco, Malta, Noya, and Corfu. Being the Subject of the Anniversary Oration delivered before the Medical Society of London, in the Spring of* 1820, *and published at their Request.* By Thomas Hancock, M.D., Licentiate of the Royal College of Physicians, and Physician to the City and Finsbury Dispensaries.

"——— 'Tis a rule which holds for ever true,
Grant me discernment, and I grant it you."

A work which, like the present, maintains precisely the same doctrine which we have always ourselves advocated, since the Repository has been in our hands,—and a work which defends that doctrine with candour, learning, and occasional eloquence,—is not likely to meet with any other award from our critical tribunal than that of almost unqualified praise. We have never, in truth, risen from the perusal of any treatise on a controversial subject with such a thorough feeling of satisfaction, as that which has been occasioned by Dr. Hancock's book. It is, beyond all measure, the best book on the subject of which it treats that it has

fallen to our lot to examine; and we venture to predict its lasting fame — its appreciation by posterity, after many of its contemporaries shall have long lived out their little life of ephemeral fluttering.

Writers on pestilence, we have again, and again, and again had occasion to say, have, with very little exception, written with party feeling and exclusive views. It would appear as if they thought it necessary to advocate one side of the question — to declare for or against contagion; either to believe that this same principle of contagion is a creature merely of the imagination, or to arm it with powers of sufficient force to resist every other agency. In these abstract views and partial notions are to be found the ingredients of all that useless matter which the poor critic is compelled to dissect and analyze, and at the last find himself neither a jot the wiser for his pains, nor capable of imparting a single iota of information to his readers. Did, then, Dr. Hancock's treatise possess no other merit than that of being totally divested of this illegitimate, *à priori,* isolated manner, that itself would constitute it in our minds (weary as we are of the quarrels of the contagionists and anti-contagionists) an excellent performance; but it justly demands praise on other grounds. It has, as we have just intimated, pressed learning and science into the cause of reason and truth; and although, upon the whole, we are less satisfied with the construction than with the materials of the volume, we can assure the reader of taste, that often and often, while perusing its pages, he will be compelled to exclaim, "This man is no less elegant and powerful as a writer, than he is cogent and convincing as a reasoner."

We will just stop at the threshold of our analysis, and give two or three proofs, that what we have advanced, in reference to the style of the present treatise, is advanced in good faith, and upon a good foundation.

"We have, therefore, seriously to lament, that most writers have attached themselves to this or that side of the argument so exclusively, as to strain the simple bearing of facts to their own hypothesis; to make a record only of these; and to keep out of view every circumstance of an opposite tendency. Hence what contrary statements, and marvellous, nay almost incredible recitals, do we find in authors, both ancient and modern, who have treated of this subject!

"Contagion, according to some, has been locked up in holes, and chests, and caves; it has even made its hiding-place a spider's web; and at particular times, as by mere accident, has been released from its imprisonment to desolate the earth! According to others, comets and meteors, planetary conjunctions, or appositions of baneful influence, volcanic eruptions, and malignant blasts from the earth

during its convulsions, have corrupted the air with pestilential steams for the destruction of the human species!

"The first class have left us in ignorance by what laws the contagion ceased, after its sources were so incalculably multiplied; and the last have not explained how a wide-spreading evil like the vitiated air still left millions untouched.

"And these two predicaments would seem to include the principal difficulties of the argument."

In alluding to the inconsistencies of those theorists who attempt to explain every thing connected with pestilential visitations upon the abstract principle of contagious influence, Dr. Hancock forcibly adverts to the fact, that during the presence of plague, other fevers are often so modified by its agency, as to create a doubt in the minds of observers, whether these fevers are or are not entitled to the appellation of plague, and that even the advent and departure of pestilence are marked by many modifications in the then existing maladies.

"We have now," says he, "arrived at that peculiar [particular] stage of the inquiry, where we are to believe, upon the admission of a celebrated writer, founded upon authentic records, that fevers of extraordinary malignity, the consequences of a corrupt or vitiated state of the air, are observed to prepare the way for the supposed invasion of an evil still more destructive.

"In other words, we have come to this singular conclusion, upon the premises, that fevers of indigenous growth have just arrived at a peculiar crisis, and assumed unusual characters of fatality, when a foreign contagion was ready to be embraced, and assimilated with most special tokens of affinity for a combined system of devastation.

"And we find, that when the work has been done, this intimate union has been dissolved; and the stranger has been dismissed in a manner quite as inexplicable as the nature of their previous connexion. For as pestilential fevers precede the plague, so do they follow it.

"But we also find, in addition to these peculiarities, that when this stranger, having accomplished his rueful errand, with strength exhausted, and character entirely changed, is ready to take his departure from one place, his powers of resuscitative vigour are so miraculous, that on his arrival at another, he can resume his original fierceness, though by insidious approaches, and display all his deadly malignity, as in the former. But in a little time he is condemned to be stripped of all these fearful qualities, and rendered impotent as before. And thus we are to understand, that like some vagabond intruder, who disguises an enormous but short-lived voracity under the semblance of impaired appetite, his visits are characterized from place to place, wherever he is permitted to gain a footing in this habitable globe."

Again: "Hence, according to this hypothesis, [the hypothesis of different degrees in the power of contagion,] the same contagion is

innocent in one place, and pregnant with evils of many months' duration in another; is slow, rapid, and feeble in its progress; has its growth, maturity, and age, maintaining a constant revolution of spring time and decay; and when it is ready to perish in a soil which has just encouraged its growth by prodigious fecundity, transplanted abroad, multiplies its species in the same manner; and, like the phœnix of old, springs with renovated vigour from its ashes."

The above extracts, while they prove the author not to be meanly qualified in respect to powers of composition, will serve likewise to give the reader an insight into his opinions on the subject of pestilential and contagious maladies: they are briefly these, that while plague is destitute of that specific something which is attributed to it by the hyper-contagionist, its virus is capable of being communicated from one individual to another, under certain circumstances: that although it is thus a communicable distemper, it is capable of spontaneous origin, and has much more reference to place and circumstances, than many are disposed to allow: that quarantine enactments are founded upon mistaken views in respect to the essence of pestilential visitation, and that fevers generally have much less of *in se*, or specific peculiarity, than systematic authors for the most part ascribe to them.

The following are the inferences with which the book before us concludes. Having extracted them, we shall proceed to a summary of the assumptions and reasoning from which these inferences are deduced.

"We have undoubted testimony, that certain chronic diseases generally acknowledged to be contagious, *originate among us in peculiar habits*, under peculiar circumstances.

"We have also undoubted testimony, that, of the acute diseases, common contagious fever *originates at certain times and in peculiar situations*.

"It is supported by equal authority, that common contagious fever may be so aggravated by peculiar circumstances, as to assume characters of extraordinary malignity.

"It is no less true, that the highest degree of common contagious fever has, on some occasions, approached so nearly to the plague, that a certain diagnosis has been in vain attempted.

"Therefore, the probability, indeed the most natural inference, is, that *the disease called the plague is only the highest degree, or a variety of common contagious fever;* and as the latter often originates without contagion, so, it is inferred, may the former; and if in one instance, so it may in many; and where there is a strong pre-disposition, it is natural to conclude, that morbid effluvia, from the diseased to the sound, must assist in propagating the mischief, by acting as a powerful exciting cause."

The first chapter of the work which we are now to analyze

consists of some sensible intimations on the general uncertainty that is connected with medical science: the author then goes on to notice the several writers that have published on epidemic and pestilential diseases, remarking of Dr. Mead in the first place, that his celebrated treatise on the plague contains many "contradictions; that he has applied, in his argument, some unwarrantable assumptions calculated to mislead; and that he has attempted to explain away facts militating against him in a manner injurious to the progress of medical science, and to the general interests of the community."

Dr. Mead, however, admits "that it has never been known where the plague did not first begin among the poor." "That a corrupt state of the air attends all plagues;" and "that fevers of extraordinary malignity are the usual forerunners of plague."

Dr. Short's chronological "History of the Weather and Diseases," contains some valuable matter, mixed up, however, with what is superstitious in belief, and incorrect in statement. Dr. Russel's work is lessened in value by the assumption throughout of the contagious principle as the cause of the mischief. Notwithstanding, he candidly admits that quarantine regulations have often proved ineffectual; in short, that plague has frequently occurred insidiously where they have been rigidly enforced; and in a more extraordinary manner has often ceased when they have been entirely relaxed. Noah Webster, of New York, has laboured to prove the connexion between epidemic diseases and the appearance of comets, earthquakes, and volcanic eruptions; and Dr. Maclean has erred in stating that the disease called plague is not, under any circumstances, contagious. Dr. Heberden, in his "Observations on the Increase and Decrease of different Diseases, particularly the Plague," has treated the subject in an able and candid manner; and "we have only to regret that one so capable did not pursue it further." Dale Ingram's work, published in 1755, is not of much value; the City Remembrancer may be consulted by those who wish for detailed observations on the plague of London especially; and a few useful hints are to be found in a book, published in 1721, entitled "Considerations on the Nature, &c. of Pestilence," although the author's hypothesis of bituminous exhalations from countries abounding with naptha, wafted by the wind, is fanciful and far-fetched.

Dr. Hancock here goes back nearly two centuries, and speaks in commendation of Diemerbroeck's book on the plague at Nimeguen, in 1636. "The work of Mercurialis on the plague of Venice, in 1756, comes next to that of

Diemerbroeck, in description and fair argument." Merton on the plague of Moscow, in 1771, and Chenot's of that in Transilvania, are worthy notice; and Pappion's "Epoques memorables de la Peste," published in 1801, ought not to be omitted. This last author is ingenious and physiological; but too partial to the doctrine of contagion. Noah Webster's is the best history extant on epidemic diseases; and H. F., "a plain tradesman," gives us the best account of the plague of London.

"Of late years a number of inferior tracts have been published, and the institution of a parliamentary inquiry has, perhaps, called many such into existence: but the question of pestilential contagion appears to rest in the same state of uncertainty. For little more has been given in evidence, by the adverse parties, than opinions founded on supposed facts of infection and *non infection*, to which each party has referred for proof of the respective doctrines."

Dr. Hancock condemns, in strong terms, the bold assertion of Dr. Granville, that the disease called plague "is never epidemic; that it is independent of all influence of the atmosphere, &c." He expresses a wish that Sir A. B. Faulkener had pursued his investigations more comprehensively, and with a less partial purpose, and finally condemns Dr. Maclean's attempt to prove that the ancients knew nothing of contagion. "For if Hippocrates and Celsus are silent upon the question, Thucydides, Aristotle, Livy, Virgil, Lucretius, Ovid, Galen, and Aretæus, are all against him."

Having, in the next chapter, introduced some remarks relative to the terms contagion, pestilence, plague, and epidemic disease, he concludes this section by apprizing the reader that he considers the best definition of plague to be "malignant fever, usually attended with bubo and carbuncle." We come now, after some further preliminary matter on "the difficulties of the subject," to an historical sketch of the London plague in 1664: the points of consideration are, "1st. The adventitious circumstances. 2d. The progress of the disease from one part to another. 3d. The character at the beginning, height, and decline. 4th. The exemptions. 5th. The facts deduced from the bills of mortality. 6th. Summary view."

The adventitious circumstances were, disease among cattle and horses, crowded population, long-continued calm weather, and disorders of different types from what they commonly assume. It originated under the following circumstances. "In the latter end of November, or beginning of December, two men, said to be Frenchmen, died of the plague, at the upper end of Drury Lane. About three weeks after, another man died in the same house, of the same distemper."

About the 12th of February, another died, in another house, in the same manner.

" Now, it may be observed, — and the fact is very curious, which the weekly bills of mortality place beyond a doubt, — that from the time the plague first began in St. Giles's, *the ordinary burials from other diseases increased considerably in number*, in that and all the adjacent parishes."

About the beginning of May, " or five months after the supposed introduction of fomites into St. Giles's," a report was spread of a death having occurred in the City. This death occurred in Bearbinder Lane; and the subject was found to be a Frenchman, who had left Long Acre from fear of the distemper. In the second week in June " there died four within the City; viz. one in Wood Street, one in Fenchurch Street, and two in Crooked Lane." The disease, in its progress, kept chiefly, however, in the outer parishes; and it is remarkable, that " the disease did not go eastward till it had spent its fury in the west, and so as it came on one way, it abated in another." About the 10th of September, the disease came to its height; and afterwards declined in malignity, when all at once, as if by the immediate hand of Providence, " the disease was enervated, and the contagion spent." The Physicians themselves were surprised; wherever they visited, they found their patients better. But, what is highly worthy of remark, it appeared that now, when not above one thousand, in place of five or six, died in a week, more people fell ill than during the period of the disorder's malignity. The *nature* of the disorder, as Hodges expresses himself, became changed. After the pestilence had spent its rage in the metropolis, it visited the provinces; and there was only one instance of the plague existing simultaneously in London and a country town. Now, we are told by Sydenham, that the common diseases were modified by the visitation in question, insomuch that " from 1664 to 1678, including the space of thirteen years, intermittent fevers were in a manner extinct in the City, excepting only that they prevailed a little in the beginning of 1671." " But during the year 1666, the *pestilential* fever prevailed; and was followed by the small-pox, continued fever, termed variolous, and dysentery, in succession."

With respect to the symptoms of plague, at its beginning, height, and decline, " It is worth observing," says Sydenham, " that the purple spots, and other marks denoting immediate danger, hardly ever happened but in the beginning of the plague, *and never in its decline, nor in those years when it was not epidemic.*" And as to exemptions, it was said that tanners

and oil-sellers escaped the disease. Bargemen and watermen were said to be rarely affected; and it did not extend to the fleet, "although for some time there was a press for seamen in the river, and even in the streets, to man the fleet." It was also said, that dealers in pitch, tar, and tobacco, escaped the pestilence. As to the inference deducible from the bills of mortality —

"It appears, in the first place, that there was an increase in the general bill for the year 1664, of nearly three thousand deaths over the number of the preceding year, or one fifth more; but a decrease is observable in the deaths under the article plague for the four years immediately preceding the year of the plague. A decrease is also observable for two years prior to that of 1625; and four years preceding 1636, only nine deaths appear. So that if the observation be not insignificant, prior to all the three years, the plague had gradually retired, or given place to other diseases, or disappeared, as in 1635, only to return with greater violence."

But the most striking fact connected with the circumstances of the case is this — that the general causes of death were in more active operation immediately preceding than subsequent to the plague. "In the year of the plague, 1665, we have 10,000 more deaths, by common diseases alone, than in 1664; and about 18,000 more than the whole mortality of 1666, which nevertheless includes 1998 of the plague;—

"So that if no fresh contagion had been imported, (arguing, for a moment, upon the supposition of its Dutch origin,) there would have been a most unusual and alarming increase in the yearly bill."

From the whole of the investigation, which Dr. Hancock extends far beyond our power of following him, the subjoined inferences are deduced :—

"1. The disease discovered itself about the end of the year 1664, and first appeared among the poor of St. Giles's.

"2. Its progress was arrested during the continuance of a severe winter, and its diffusion attended by a warm southerly constitution, in 1665.

"3. It was preceded by other diseases in the spring, that occasioned great mortality, and particularly by an epidemic pestilential fever.

"4. *It was matter of doubt whether this fever was the plague or not.*

"5. The disease exhibited various symptoms or characters, in its beginning, height, and decline.

"6. In the parish where it first prevailed, the mortality from other diseases was most decidedly marked; *and it abated in the west as it proceeded eastward.*

"7. The train of diseases which had immediately preceded, on its decline reappeared; and its decrease was, like its increase, moderate.

" 8. Some exemptions were noticed, both as regarded persons and places."

It is right to remark, that the italic emphases are those of our own marking. Dr. Hancock is very careful, throughout the whole of his book, to avoid any indication even of a disposition to prejudge the question.

In the sixth chapter, entitled, " Of the time when a pestilence appears, and the subjects it chiefly attacks," it is stated, that the poor are always the first recipients of pestilence, and that in most places, the time when a pestilence begins to spread is remarkably connected with the latter end of spring. " In Egypt it is otherwise, and perhaps also in countries subject to a *mal-aria*, or endemic marsh fever, where the autumnal months are most sickly and fatal."

When treating " on the seasons and natural signs preceding and accompanying pestilence," Dr. Hancock engages in a very learned and elaborate investigation of connecting particulars; and proves, from the ancient classics, historians, medical writers, and the sacred writings, that pestilential visitations have usually been accompanied by general sicknesses, by deaths among the inferior animals, by an unusual number of insects, by blights, mildew, &c. He concludes this division of his treatise with the following words: —

" Thus we see that philosophers, poets, ancient historians, and Physicians, speak as it were one language, and sound one note of warning: and even the sanction of Holy Writ may, without forced comment, be applied in support of the general principle; whilst a single idea that seems, in its practical effects, to exclude all other considerations — the dread of foreign contagion — upon this point, engrosses the concern of all the most enlightened modern statesmen of the most civilized countries in the world!"

We next meet with a detail of facts in proof that " fevers of extraordinary malignity are the usual forerunners of plague; and that when the contrary is the case, that is, that when, at the approach of a pestilential constitution, there is an absence of common disease, which has been remarked by some authors, " it is as when an evil of overwhelming magnitude extinguishes a host of minor afflictions."

" Therefore," says Dr. H., " so far from affording triumph to the advocate of imported contagion, it leads, in my view, to a conclusion quite opposite. For by what combination of causes, it might be fairly asked, should the common prevailing diseases be banished as it were from a city or country at the very critical juncture when a disease of foreign growth, with which they have no natural connexion, is casually introduced amongst them? Do they hide their diminished heads, or flee away as from the presence of an unwelcome stranger?"

The occasional doubts of authors as to the name and nature of pestilence, whether, in other words, an epidemic visitation is or is not to be considered plague, constitutes another strong circumstance in favour of the views which Dr. H. takes of the subject; and we have already adverted to what our author largely comments on in his tenth chapter, viz. the different degrees of facility and violence with which plague attacks individuals at different periods of its prevalence; and he further remarks that the malady

"Partakes of the nature of the ruling disease, in whatever place it prevails; in one country, showing a tendency to the heart and lungs; in another, a bilious and icteritious tendency; in another, a dysenteric and spasmodic tendency; in another, a remittent febrile tendency; in another, a cuticular tendency, &c.

"How far," he asks, "have we the analogy of any specific febrile contagion to assist us in explaining such complicated phenomena?"

Pestilence mostly extends to neighbouring parts, and rarely comes to any one place as a solitary evil, "and there is a progressiveness observed in its movements, from place to place, in the city, and from the city to the country. One kingdom is also visited after another; and in each the disorder, modified, however, by various causes, passes through its several stages."

Dr. Hancock next animadverts on the remarkable facts, that a few months put a period to the most formidable plagues, although multitudes of the population remain susceptible of contagious influence, and that the period of the calamity proves nearly the same in crowded, filthy, and ill-regulated cities, as in those where all the regulations of the strictest health police are maintained from the commencement in the most active operation: proofs these, that "there is a power stronger than contagion to control its effects, and a power stronger than medicine to change the character of the disease;"

"And, therefore, he that, exclusively believing in a contagious virus, asserts medicine and police regulations can do all, and attributes the removal of pestilence solely to their means, may be as much in error as he who, convinced of a general contamination in the air, denies contagion, and believes a crowded or a scattered population would make no difference in the mortality, or that a filthy habitation would add nothing to the malignity of the distemper, and that, as the disease is from the air, it matters not whether he stands idly gazing on till it shall cease, or assists to remove a local nuisance out of the way.

"Hence, it is clear, there must be a proper medium between these opposite views, which alone the cautious observer and the wise Physician can pursue with safety."

The laws of exemption are not precisely the same in all

cases of pestilence. We have already alluded to different causes of exemption, as reported by authors; but age and degrees of robustness constitute varieties in susceptibility. In the London plague the old generally escaped; and it has been found that valetudinaries often enjoy an immunity from pestilence. Young children too often prove remarkably susceptible of the disease. Strangers in a country are frequently afflicted with less force than natives; and, not seldom, a pestilence has been confined in its influence to the natives of the place in which it has been engendered.

" In a plague at Bath, only Swiss; no Italians, nor French, nor Germans, were affected. And at Hafni in Denmark, during a dreadful pestilence, all strangers, as English, Dutch, and Germans, escaped; notwithstanding they lived promiscuously amongst the infected in infected houses.

" In the sweating sickness, even by travelling into France or Flanders, the English did not escape; and, what is stranger, the Scotch were free, and abroad the English only affected, and foreigners not affected in England."

The mode of living occasions a difference in susceptibility. Dr. Maclean remarks, from Howard, that Catholics during Lent are more liable to the plague than Protestants; and that Europeans in general are less liable to it than Greeks, and particularly Jews. In the chapter where the circumstances of liability or exemption are descanted on, Dr. Hancock very properly remarks, that they who confine their views to the mere disease, in its decided and malignant form, are in error. " The final stroke ought not to be viewed as the first and only wound that has been inflicted; though we are too ready to ascribe the whole effect, some to the sole operation of specific contagion, and some to an immediate corrupting poison in the air, *without respect to any antecedent causes of disease.*"

" *Of the supposed Origin of Pestilence, by imported Contagion, concurring with a peculiar State of the Air.*"

Public rumours fixed the origin of the London plague upon imported merchandise from Holland. This is the account that Hodges gives of it; but

" Hooke, who was in London many months after the supposed introduction of these goods, and while the pestilence was raging, after all his inquiry, could not ascertain the cause; nor the indefatigable Boyle, who wrote largely on the plague, when he says, ' Whatever be its cause, the propagation and decrease of the symptoms may probably enough be referred to the depravation of the air.' "

It is, moreover, an undoubted fact, that several concomitant circumstances occurred at the time of the breaking out of the distemper; and it is difficult, says Dr. H., to

imagine so strange a contingency, as that the elements and contagious poison should thus co-operate at the same moment of time. "What solemn preparation," says our author very forcibly, "was made at home for the reception of this unwelcome stranger; and how opportunely it came, like some foreign enemy who had secret understanding with a host of rebellious spirits, waiting anxiously his arrival, to plunge their native country in ruin."

With respect to pestilential visitations in different provinces, we have not even any records of the introduction of contagion by persons or fomites, in any one instance, excepting that of Eyam in Derbyshire, by goods from London, conveyed, it is said, to a tailor's family: and the want of such record Dr. H. considers as a convincing proof, that "the disease was as insidious in its approaches in all these places as it was in London, and as it has ever been in other places.

"For however the air of London, from its magnitude and crowds, might have been generally tainted with the miasmata of a specific contagion, so as to induce infection without the medium of persons or fomites, we should suppose its first appearance in small towns and villages must have been signalized by some special occurrence. I say this of a specific foreign contagion, virulent and active as that of plague has been usually represented. Of such a contagion it would be the natural property to diffuse itself abroad, by contact or otherwise, whilst any were uninfected; to end as it began, without varying its character; to *lose none of its essentials in changing its abode;* and if it lost them in the decline in one situation, (being, as it were, gradually exhausted in a country unfavourable to its continuance,) to impress with less power, whilst it was migrating, with impaired energies, to another.

"Do the phenomena of the plague's progression correspond to these properties?"

No; "it begins in the new place as it began in the old; and, whether care be taken or not, goes through its course with the same regularity, declining with every mark of exhausted contagion; 'sedem mutans, et alio migrans; *haud ideo mitescit,* sed *æquali furore* hic sævit, sicut ibi.'"

The exemption of Oxford, Dr. Hancock maintains, is in favour of his views respecting the necessity of fostering circumstances for the propagation of pestilence, seeing that the police of that city was especially careful in preserving cleanliness and airiness, during the prevalence of plague in other parts of Britain.

"The question has been often asked, Why the plague has not appeared as an epidemic in London since the year 1665?—and

as often hastily answered — by some, that the constant use of pitcoal, from its sulphureous quality, has proved an antidote; by others, that the steady operation of our quarantine laws has succeeded in preventing it.

" I apprehend neither the former nor the latter reply will stand the test of examination; and that we must take a more comprehensive survey of the past and present circumstances of our towns and villages; and look more to other causes, operating nearer home, than to any effect that can be produced either by coals from Newcastle, or by contagion from the Levant. For coals were in use long before; and no one can doubt that goods have been often landed in this country since, if not saturated with contagious effluvia, certainly deeply imbued with the air of infected cities. So that if any *seminium* from abroad could act as a leaven in gradually corrupting the air of our climate, it might as well be done, perhaps, by the pestilential air necessary to its diffusion, as by the contagion itself!

" For I am not without some apprehension, that if a blanket were long exposed at a fit season, and folded up in the midst of one of our most extensive ague marshes, it might communicate an intermittent to one predisposed, a considerable time after. Therefore, if infectious substances were ever brought from one country to another, — and a vitiated, or corrupt, or pestilential state of the air, be really necessary in every place, — it may be a question whether a quantity of this pestilential air, enveloped in substances like cotton, wool, silk, &c. may not have done as much mischief as a contagious virus. For if an impure atmosphere, by dilution, may be so corrected as to become innocent — and if what are termed fomites, by ventilation and thorough exposure, may lose their noxious qualities — there is almost as much reason for the one supposition as for the other; nay, perhaps more for that I have suggested, if the smallest atom of a true contagious virus be sufficient to produce the full effect. This is all, however, merely conjecture; and is entitled to no more weight than a conjecture at best deserves, when thrown into the scale of argument on either side.

" But the connexion of plague with filth and impure air, and crowded, ill-constructed cities, — and with certain seasons, and climates, and states of the atmosphere, calculated to engender mischief, though not accurately defined, — has been so repeatedly observed in different countries, as to stand on a far more solid foundation."

The exemption of London since an improvement has taken place in its polity, is not a solitary fact in the history of nations; we have the authority of Heberden for stating, that " at the time pestilence was so destructive in England, it raged with equal violence in other parts of Europe, and probably from the same cause. The histories," says he, " of those ages, are full of the physical and political miseries which prevailed: and in proportion as the nations of Europe have become civilized, and agriculture, with the arts of peace, has been cultivated, this disorder has gradually disappeared."

"Of the Evidence from Quarantine Establishments and Lazarettoes."

It is a remarkable fact, that none of the expurgators of goods in Great Britain, at the quarantine establishments, have ever taken the plague since their origin; "and deputy inspector Grieves informed Dr. Maclean, that during the plague of 1813 none of the persons so employed were affected." Again, the mode in which quarantine enactments are performed is often so careless and defective, that, even allowing their efficacy, the exemption of plague, under the circumstances of such irregularities in the execution of the rules, by no means proves any thing in favour of the doctrine of imported contagion.

"Now, as far as the strictness of health laws is concerned, it is well known that it was not till 1720, the year of the plague of Marseilles, or near sixty years from the last visitation, that these laws were revised. The mode of their execution had been previously so lax, that they could not be depended on; therefore, a period of half a century elapsed with an inefficient defence. And since that, if we are to believe Dr. Russel, we have been more indebted to chance than good management for our escape. About the beginning of the present century, I believe, they were amended. But no one doubts that many a bale of merchandise, both silk and cotton, from our regular intercourse with Turkey, must have been often introduced to this country, during this long interval, brought directly from infected cities — I will not say infected, but touched by infected hands, and packed in infected air.

"From the evidence connected with quarantine establishments, therefore, I must freely own, I place but little confidence in the efficacy of British quarantine in protecting us from foreign disease."

In chapter the fifteenth, Dr. Hancock goes into an investigation of the principles on which the propagation of pestilence from one country to another seems to depend, and of the prognostic signs of its invasion. It is not more surprising, he argues, that some kinds of contagion should prevail in one country, and some in another, than that particular vices should diversify and deform the human character; nor is it, he further states, more wonderful, that some diseases, the product of filth and uncleanliness, should spread by intercourse, than that evil communications should corrupt good manners. "But, to follow up the analogy, as there must be a state of mind to receive the moral taint, so must there be a state of body to receive the physical."

We must make room, though it is with difficulty we do it, for the following very important corollaries:—

" 1. Condensed human effluvia, the product of local filth, and crowded, ill-ventilated houses, are connected with the origin of almost all epidemic plagues; and their dissemination has been generally in proportion to the extent of these local causes.

" Hence, plagues have usually first appeared in those situations where multitudes of human beings have given greater efficacy to the causes; as in large cities, in harassed and broken armies, in crowded hospitals and jails.

" Therefore, cleanliness in person, in houses, and in streets, is of essential importance to prevent the first germ of contagion from coming into existence, or supporting its existence amongst us.

" Hence, all great cities which since the middle of the seventeenth century have adopted judicious regulations in these respects, viz. in the construction of houses, in widening, paving, and cleansing the streets, in the removal of all sorts of impurity, in a plentiful supply of fresh water, &c. have experienced a corresponding exemption from this evil; and therefore it may confidently be predicted, that all others which follow the same wholesome regulations will be also exempted, making due allowance for the difference of climate and situation, and for extraordinary circumstances.

" 2. All cities and towns placed in unhealthy situations, as in the vicinity of marshes and corrupting lakes, or at the mouths of muddy rivers near the sea, have, *cæteris paribus*, been the first attacked with pestilential diseases, where the other local causes above mentioned have been also exerting their influence. And all cities so placed, by draining marshes, turning running streams into stagnant lakes, by shutting out the sea from fresh water ooze, (which is known to produce a more destructive miasm than salt or fresh water alone,) have been rendered proportionably healthy. Therefore we may conclude, that like causes will be followed by like effects.

" 3. Epidemic plagues have generally followed intemperature of the seasons, the horrors of famine, and the desolations of war. Hence the poor have been the earliest and the principal victims; and those whose bodies have been most impatient of elementary changes, and whose minds have been agitated by fear, contending emotions, and civil broils. Therefore, it must be an imperious duty for rulers to provide for the poor in time of plenty against the time of need; to promote the arts of peace, by which a country is tranquillized and enriched; and avoid the evils of war, by which it is impoverished and alarmed: and should unavoidable calamities occur, then, if all the wisdom of man can dictate be put in practice, without question, the best possible defence against a general pestilence will be set up; though danger be on every side, and contagion in every port.

" 4. Epidemic plagues have generally followed a stated rule in every place, both in the time of their beginning and the time of their decline.

" Therefore, in other times or seasons of the year, their dissemination may be pronounced to be highly improbable; and if the mortality shall be very severe, they will cease at the usual time: but if other epidemic diseases start up, their decline may be prognosti-

cated with more certainty, though in such cases their return will be more probable than if this interruption to the regular progress had not taken place.

"5. In every epidemic pestilence, multitudes of those fully exposed to the contagion have not been affected by it; others have been affected very slightly; others have been relieved from the sufferings occasioned by previous chronic disorders; others, though separated from their blood-relations, have been seized at the same time with them; others, valetudinarians before, have enjoyed unusual health and alacrity during the whole period; and others have been seized with the disorder, without being able to trace it to any possible source.

"Hence, the risk of infection and of danger is by no means so certain as to create despondency, or to dissuade from active exertions in the public welfare: and it may be presumed, that flight and seclusion will not always protect the timorous from the disease; but in such cases, the danger will be in proportion to the violence and spread of the epidemic. Therefore, neighbouring towns will seldom have much to fear in opening their gates to the miserable fugitives: and the observation of Lord Bacon will generally be found correct, that 'the plague is noted to go in a blood more than from stranger to stranger.'

"Therefore, as what is injurious to one is found to be beneficial to another, the objection to a general state of air being in fault, that it does not display its effects more universally, is answered even by these facts, without reference to the signs of an ill state of air, or to the preceding epidemics, or to the state of the disease itself, and its acknowledged change of property in the different stages; and therefore the probability is, that contagion is only subordinate, and does not act the primary and essential part in the dissemination of pestilence.

"6. In all epidemic plagues, terror, and anxiety, filth and defective nutriment, hurry and fatigue, anger and intemperance of every description, have acted as predisposing and accelerating causes of the distemper.

"Therefore, calmness and regularity; patience under difficulties; careful ablution; a full and rather generous system of diet, under the guidance of temperance in every thing; the spirit of benevolence and piety, such as marked the conduct of Hodges and Diemerbroeck, Langeron, and the Bishop of Marseilles; will prove, it is supposed, better prophylactics and antidotes to the disease, than can be supplied by all the 'well-stored magazines of health and boasted implements of our art.'"

Here we are compelled to terminate our account of a treatise, on the merits of which most of our readers will think we have already said quite enough. In an appendix, Dr. Hancock refers more particularly to the recent works of Jackson, Faulkener, and Tulley. He complains that the second of these authors is

partial in his statements, and the last dogmatic; and adduces, in proof, that an article in the Quarterly Journal, which has no case to make out, refers to "interesting concomitants" that are studiously, as it appears, avoided by Tulley. After all, however, it is, we confess, with the appendix of the work that we are the least satisfied; for there does appear a little indication, on the part of the author, to wish that Faulkener's statements were less strong in reference to imported contagion. We shall take the liberty to sum up the whole by making an extract from a paper of our own, which appeared some time since in the REPOSITORY, and the justness of which our future researches have appeared to us rather to confirm than invalidate.

In the commencement of the present review we made use, we believe, of the word "precisely," in stating the similarity of our own sentiments with those of the learned author. Whether that word was stronger than a comparison of the following extract with the corollaries of Dr. Hancock will justify, we leave the reader to determine. It will be seen that the particular reference is to yellow fever; but the observation applies to all infectious maladies; the great mistake of authors, in reference to these maladies, being that they look for their specific difference to a wrong source; a mistake which our present author has succeeded in his endeavours to expose, and determination to correct. A section, indeed, of his book is devoted to the proof that even chronic and cutaneous distempers are often susceptible of spontaneous origin, are occasionally convertible one into another, and are greatly dependent for modification upon other circumstances beside differences in specific virus. But we must forbear to enlarge. The following is the extract just referred to:—

"We conceive that the difference between infectious fevers and contagious disease, is after all rather in *degree* than in kind. For example; let half a dozen seamen, each having the plague or ship-distemper upon him, be debarked upon a healthy shore; let each be taken into a separate family, in order to be nursed and managed: the consequence will probably be, that one or more of the individuals of the respective families in which these men are received, may be seized with more or less of sickness; but there will be no fear that the sicknesses will become the seeds of an infectious distemper, because the disorder, by propagation, has become too dilute to impregnate others, without the assistance of an infectious atmosphere, which in this new region does not exist. But if the same number of men, with small-pox, were disposed of, and received in the same manner, this latter disease would speedily become an epidemic in the place; since, for the spread and propagation of this

last distemper, no atmospheric influences are necessary *. Further, let us suppose that our seamen, instead of being let loose on the shore, and separated in the way just imagined, were received into the ward of an hospital; suppose further, that in this case sufficient attention were not given to cleanliness, and ventilation, and separation; an atmosphere of infection would then soon be engendered in the hospital, which would cause the slight aliments above alluded to, to be confirmed into actual, positive, and *communicable* fever. Suppose, lastly, that our sick men were landed on a coast, the air, and latitude, and temperature of which were precisely the same as the place in which they received the infection; and there would then be no inconsiderable danger of these individuals, even though dispersed in separate houses, originating an infectious fever.

" Admitting the correctness of the above statement, it necessarily follows that the vulgar apprehension of communicating epidemic maladies from one region of the globe to another, in the manner that quarantine precautions and laws suppose, is altogether a chimera: and it is high time that these vexatious impediments to the freedom of commercial intercourse should be abolished. It is well remarked by Dr. Adams, in his interesting work on epidemic diseases, that the Dutch, who are without quarantines, are not more frequently visited than ourselves with infectious disorders.

" But the anticontagionists, in reference to the particular disorders in which they deny the agency of contagion, argue for something still more positive, and contend that those exterior influences are not only necessary for the production in every case of the induced maladies, but that they are independently and exclusively operative; and that whether one or one hundred are down with the disease, such disease is equally incommunicable by any specific poison engendered by morbid actions. In this opinion we are apprehensive they carry things rather too far: and although we think it established almost with the force of absolute demonstration, that contagion is not necessary to originate yellow fever: and that further, it will not propagate the distemper unless aided by exterior circumstances, favourable to its agency; we nevertheless seem to want facts of a more forcible and positive kind, in order to prove that no virus is formed in the body of an individual labouring under this fever, capable of impregnating or inoculating another with a certain quantum, at least, if not *kind* of disease. It has been alleged, that the fever, which some time ago raged at Gibraltar, was, with an evidence too palpable to be questioned, conveyed thither from Malaga: and if this be allowed, it must follow that febrifacient virus is not only capable of being engendered, but that, under certain circumstances, it may be conveyed and become operative at a distance from its production."

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* This statement, however, may be modified by the admission that atmospheric influences *do* occasionally appear operative in disseminating even small-pox.

II.

On the Nature, Symptoms, and Treatment of the different Species of Amaurosis, or Gutta Serena; illustrated by Cases.— By JOHN STEVENSON, Esq., Surgeon-Oculist and Aurist to His Royal Highness the Duke of York, and His Royal Highness Prince Leopold of Saxe Cobourg; Member of the Royal College of Surgeons, &c. &c.

THIS, as well as the work of Dr. Hancock, just reviewed, is grounded upon an oration, delivered by the author at the Anniversary Meeting of the Medical Society of London, in March, 1817*. Some opinions, expressed at that time, were regarded as interesting by the president and members of the society; and after seeing his ideas confirmed by subsequent observation and practice, the author submits his essay to the candour and indulgence of his professional brethren.

Mr. S. remarks, that "the term 'amaurosis' has been applied not only to confirmed cases, where the optic nerve, or retina, is primarily impaired or destroyed, but likewise those diseases which are accompanied with amaurotic symptoms, the result of a morbid affection of the choroid and sclerotic coats, a change of structure in some of the internal parts of the eye-ball, or of the brain, as well as of sympathy of the eye with a disordered state of the chylopoietic viscera, and of metastasis or transition of diseased action from other parts."

It is very well observed, that not one of the symptoms, usually attendant upon this disease, is inseparable from it — that strabismus — the various conditions of the pupillary aperture, and other appearances, though often symptomatic, do not warrant us in deducing any positive opinions relative to the precise nature and essential character of amaurosis.

The altered colour, or unusual turbidity of the humours, claims great attention, and is more to be relied on, than many other symptoms. In advanced cases, the enlargement and flaccidity of the globe mark too clearly the state of disorganization.

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* It may here incidentally be noticed, that Mr. Stevenson may prefer a claim to priority, as to time, in respect of some intimations which have been subsequently given with the air of originality. Did we come forward as defenders instead of reviewers of Mr. Stevenson, we might further state, that the circumstance of this gentleman having, during a part of his life, been occupied in extensive practice as a *general* Surgeon, obviates the objections that some have advanced against mere *oculism*.

After describing the most remarkable forms of attack in this disease, Mr. S. observes: "Under ordinary circumstances, the patient first becomes sensible of a somewhat weakened sight, or rather of an interrupted state of vision, manifested by certain parts of small objects; as, for example, the letters or lines of a book being at one time more distinctly visible than at another, the sight of which he alternately loses and regains by shutting or rubbing his eyes, or by moving his head in different directions.

"This symptom, which, when it occurs, is the earliest intimation of the commencement of the disease, is to be regarded as a proof of the impaired sensibility of the optic nerve, and may perhaps be explained by supposing that certain points of the *retinal expansion*, in consequence of the general diminution of its energy, speedily lose their perceptive faculty. Hence it becomes requisite for the continuance of the function of the organ, that new surfaces should be successively presented, which may not yet have been exhausted by the impression of external objects. Or, the stimulus of attentively observing a small object, inviting a further afflux of blood to certain parts of the vascular texture of the retina, already possibly in a preternaturally turgid condition, may induce an additional accumulation of fluids, a consequent pressure upon, and a corresponding torpor in, a defined portion of its medullary lamina."

In determining upon the existence of amaurosis, and in distinguishing it from cataract, the author justly notices the propriety of attending to the history of the disease, the varieties in the habits of life and constitution of individuals, and the most minute circumstances which may lead to a correct view of the disorder: the great importance of discrimination will be the more evident, when we recollect, that it is in the doubtful cases that there is most room for successful practice in the infancy of the complaint; for in those confirmed states, where the disease speaks for itself, it is not judgment that we want — but *power*.

Of the prognosis in amaurosis, Mr. S. says little: considering that our judgment must be directed by the history of the disease, its mode of attack, and particularly by its long continuance, or recent appearance. As a general rule, acute and periodical attacks may be said to be of a more favourable nature than the slow, insidious, and disorganizing forms of the disease.

In the chapter on exciting causes, the author first establishes that "amaurosis is really an affection of the nerve subservient to vision; its destruction, or malconformation, being invariably accompanied with complete blindness, and its economy being always more or less disturbed or impaired,

according to the degree in which it may have sustained any functional derangement." After mentioning our ignorance of the precise condition of the nerve affected in this complaint, he says: "The sum of our acquaintance with the nerves, exclusively of their more obvious physical qualities, consists in our being satisfied, from undeniable facts and experiments, that they are the true conductors of sensation: and in support of an hypothesis as to the modified actions of the extremities of nerves distributed to different organs, whilst the arteries and veins preserve one uniform character, whatever their size, their distribution, or their function, the nerves of the senses have a structure different in appearance, but all admirably adapted to receive, and be affected by, the impressions of their respective stimuli."

Mr. S. proceeds to remark on the exciting causes of amaurosis: he thinks the greater number of these produce their morbid effect on one common principle; and considering, that in proportion to the simplicity of our premises will be the clearness and perspicuity of the inferences deduced from them, he suggests *pressure* to be the most frequent and general cause of the disease. "If it can be shown," he says, "that the greater proportion of cases of that disease are connected with topical pressure, we shall have made no inconsiderable advances towards establishing not only a plain and consistent theory relative to its nature, but likewise a mode of treatment founded upon it, at once rational and scientific, and as such promising a share of success commensurate with the circumstances of the case."

We beg leave to remark, that we regard all hypothesis as the scaffolding surrounding the temple of science, and of use so long as we are placing the more solid materials. It is quite fair occasionally to raise ourselves above the level of demonstrated facts; but we must be extremely jealous of admitting the most reasonable doctrine as truth, — we cannot be too cautious in establishing principles. Indeed, though attached to his theory, Mr. S. does not deny, that "amaurosis occasionally acknowledges a very different, nay sometimes even a diametrically opposite origin."

The work now describes several forms of amaurosis attendant upon plethoric constitutions, where turgescence of the vessels of the head and over-excitement of vascular action appear to exist. The number of accidents which follow from a preternatural injection of the brain, apparently justify the author in ascribing most cases to pressure upon the neurilema. He also thinks, that even in chronic cases, where the general symptoms mark a habit of body the reverse of the plethoric, an irregular distribution, a partial congestion

may exist. However, the amaurosis from depletion, in which the symptoms appear to proceed from want of excitement and support of the tissues, is mentioned, but as a disease of much less frequent occurrence.

The numberless cases of amaurosis, whether transient or confirmed, which are found existing simultaneously with disorders of the chylopoietic viscera, are duly noticed, as well as their known connexion with excessive mental exertions, and with the long continuance of depressing passions; our author, as well as Mr. Travers, mentioning cases of young widows, who *cry their eyes out.*

In treating of the causes and phenomena of amaurosis — as, indeed, of most diseases — we must avoid considering the nerves as independent agents. *Nervous influence* is a name we give to actions in all probability very complicated. The Anatomist may be allowed to distinguish the different tissues, for the purpose of demonstration, but the Pathologist must observe their combined effect; for so great is their *consent of action,* that we are often unable to point out the principal offender.

When considering the treatment of this disease, Mr. S. is of opinion, that " the indications of cure must consist in relieving the retina from vascular excitement or oppression, the effect of local inflammation or simple congestion, by general or topical depletion, proportioned to the urgency of symptoms and the character of the disease, and by other means calculated to *derive* from the part affected, by removing obstructions, and equalizing the circulation, — and, finally, by restoring the tone of the vessels, and the impaired energy of the nervous texture of the eye."

The author judiciously combats the opinion that morbific stimuli in the stomach constitute the real cause of the disease; and thinks that the utility of emetics and purgatives is not merely dependent upon their emptying the passages, but upon their power of exciting circulation and absorption, and of " reducing the morbidly distended and relaxed vessels to their healthy calibre."

He speaks in the highest terms of bleeding, in all its different forms; and considers that the generally unfortunate termination of the acute species of amaurosis is owing to the depletion not being carried sufficiently far.

In asthenic cases, topical bleedings, counter-irritants, and stimulants applied to the eye, are recommended.

Mercury he considers useful, in acute cases, from its power of altering the morbid action of the vessels, and promoting the absorption of effused lymph; but in the *asthenic* form of amaurosis this remedy is judged of prime importance, in

correcting disorders of the viscera subservient to digestion, in calling into general action the vascular and absorbent systems, and restoring the lost balance of the circulation.

Electricity is thought not only generally useless, but in some cases highly injurious, from determining a flow of blood to the part which is influenced by it; and Mr. S. reasons from the circumstance, that a blush or suffusion is the effect of its being applied to a pale surface.

Great attention to the general health and habits is very properly recommended.

We have now to speak of a new mode of *provoking* the blood from the deep-seated vessels to those of the superficial order. This is by *dry cupping* the ball of the eye and its appendages, by applying a well-adapted, strong glass, fitted with an exhausting syringe upon the edges of the orbit.

This agent Mr. S., upon information by a friend of its efficacy, and after himself witnessing "extraordinary and very decided effects" from its employment, recommends without hesitation to Professional men, as fully entitled to their serious attention and future trial.

After advising the use of tonics in those cases connected with great constitutional exhaustion, our author says, "Indiscriminately to attempt to relieve symptoms arising frequently from diametrically opposite causes, and under different constitutional susceptibilities, by one unvaried method of procedure, would be no less empirical than unscientific and detrimental;" and near his conclusion very judiciously adds, "In conducting the treatment of a disease arising from various causes, and exhibiting an equal diversity of phenomena, it is highly expedient to be provided with numerous resources, some of which will be found best suited to one description, and others to a different assemblage of symptoms and peculiar idiosyncrasies."

In an appendix several cases are detailed, illustrative of the disease, and of Mr. S.'s opinions and mode of practice.

We cannot help regretting, that throughout the work the style is a good deal involved: much is lost from neglect of arrangement. The amalgamation of cases with definitions, and of the description of exciting causes with the method of cure, is much in the way of the reader.

At the same time, we have been much pleased with the judgment and candour every where apparent in Mr. Stevenson's remarks.

PART III.

SELECTIONS.

Some additional Facts relating to the Division of the Eighth Pair of Nerves; communicated in a Letter to the Editor of the Journal of the Royal Institution, by A. P. W. PHILIP, M.D., F.R.S. Ed., &c.

[*From the Quarterly Journal of Science, Literature, and the Arts.*]

I CANNOT, in any way, refer to the division of the eighth pair of nerves, without taking the opportunity to acknowledge the very candid and liberal manner in which Mr. Broughton has, in the last Number of the above Journal, stated the results of the experiments lately performed at the Royal Institution.

It appears, from the observations of that gentleman, that it is admitted by all who witnessed these experiments, that after the eighth pair of nerves are divided in the neck, and the lower portion folded back, little, if any, progress is made in the digestive process; whereas, if the divided ends are not displaced, its progress is still considerable.

An interesting question here arises, whether in the latter case the nervous influence is still conveyed in consequence of the divided ends of the nerves remaining in actual contact, or in consequence of its passing through moisture or other intervening bodies?

In order to determine this question, the following experiment was made, in which Mr. Cutler, Assistant Surgeon to the second regiment of Life Guards, had the goodness to assist me.

A rabbit was kept without food for twenty-four hours, and then allowed to eat as much parsley as it chose; as soon as it ceased to eat, the eighth pair of nerves were divided in the neck, without displacing them. It was evident, both to Mr. Cutler and myself, that at the moment the division of the nerves was made, the ends so retracted as to cause them to separate from each other to about the distance of the sixth part of an inch. The animal was allowed no food after the operation. It was found dead at the end of eight hours.

On the stomach being opened, it appeared that digestion of the new food had made considerable progress. The neck was examined, and the divided ends of the nerves were found to have remained at the above-mentioned distance from each other.

This experiment was repeated in all respects in the same manner. The ends of the nerves now retracted to the distance of a quarter of an inch from each other on both sides. The animal lived about six hours, and the digestion of the new food was far advanced.

Mr. Brodie examined the state of the food and the position of the divided nerves in this rabbit; and both he and Mr. Cutler allow me to state, that they are satisfied that the nervous influence had, in the foregoing experiments, passed from the upper to the lower portions of the divided nerves.

The following facts, relating to the division of the eighth pair of nerves, and the power of galvanism in obviating its effects, appear now to be admitted on all hands:—

That after these nerves are divided in the neck, and the lower portions folded back, little, if any, progress is made in the digestive process.

That if the lower portions, thus folded back, be connected with the positive end of a voltaic battery of a certain power, the other end of the battery being connected with the skin over the stomach, the efforts to vomit which follow the division of the nerves do not take place; and digestion goes on as perfectly, as far as can be judged from the appearance of the contents of the stomach, as in the healthy animal.

That when, instead of the lower portions being folded back, they, as well as the upper portions, are allowed as much as possible to remain in the natural position; digestion makes great progress, notwithstanding the divided ends so retract, as to be separated from each other by the distance of a quarter of an inch.

That the difficulty of breathing occasioned by the division of the eighth pair of nerves in the neck, is prevented by the influence of the voltaic battery applied in the way above pointed out.

The reader will judge how far these facts tend to establish the identity of the nervous influence and galvanism.

But in judging of this question, it is necessary, in addition to the foregoing facts, to keep in view those which seem

to prove that the nervous influence is altogether distinct from, and has nothing in common with, the sensorial and vital powers, and possesses no properties but those of a chemical agent; and that the influence of the voltaic battery is not only the best of all stimuli to the muscular fibre, and capable of passing along the nerves in either direction, but is also capable of raising the temperature of living arterious blood, while it can produce no such effect either on venous blood, namely, that which has already undergone the effects of the secreting power, or on arterious blood, which has lost the vital principle. I need not here refer to the well-known facts of electricity being evidently conveyed by the nerves and under the power of the will in certain animals, and the newly dead brain forming, with other parts of animals, a galvanic apparatus.

It has been said, that the restored digestion and free breathing produced by the influence of the voltaic battery after the interruption of the nervous influence, may arise from the former acting as a stimulus to the secreting surfaces; but it will appear, I think, that this explanation, which is derived from the laws of the muscular system, is founded on a false analogy. It is proved, by the most simple experiments, that after the nerves of a muscle have been divided, the application of a stimulus still calls it into action; the cause of which is explained by those experiments, which prove that the muscular power is independent of the nervous system, and only affected by its influence in the same way as by other stimuli. But with respect to the secreting power, all the experiments on the subject combine to prove, that it so immediately depends on the nervous system, that it ceases to exist as soon as the influence of that system is withdrawn.

It may be proper to add, that the experiment which proves that the division of the nerves only destroys the secreting power when one portion of them is folded back, is an *experimentum crucis* respecting the subject of my late discussion with Dr. Alison. It appears from it, that it is not the injury done to the nerve, but the interruption of the nervous influence, which destroys the secreting power.

Mr. Field found that an opening made in the trachea of a horse, large enough freely to admit of the introduction of two fingers, had no effect in relieving the dyspnœa occasioned by division of the eighth pair of nerves.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

[As our Foreign supply has not come to hand, we have thought the following paper, from a Transatlantic physiologist, would prove interesting to the reader, and therefore publish it.—Ed.]

On the Generation of Animal Heat. Read before the Philadelphia Academy of Medicine. By Richard Harlan, M. D., &c.

"Opinionum commenta, delet dies, Naturæ judicia confirmat."—Cicero.

Early convinced of the inefficacy of those theories founded upon the doctrines of *chemical life,* which have a natural tendency to debase man from his dignified and compound condition of soul and body, to a mere complex chemical machine, I was led to examine with care the laws of vitality, and the *phenomena* resulting therefrom—not the least interesting of which is the *generation* of *animal heat,* or that function by means of which the body, during health, maintains a similar and equable temperature throughout all parts of the globe.

I may here be permitted confidently to state, that I have been governed in my investigations solely by the desire of detecting truth. "Friend to no sect, I seek no private road."

Clothed in the seductive garb of high-toned eloquence, or subtle disquisition, error appears to have been inseparably connected with those dogmas which allege that the multiplicity of changes, synthetical and analytical, occurring in our elementary particles, are produced by means of chemical or mechanical agency! Numerous examples might be adduced in illustration of this, though I shall rest satisfied with the following well attested fact.

While one physiologist estimated the force of the heart as equal to one hundred and eighty pounds, another reduced it to eight ounces; and both these conclusions are deduced from reasonings presented in all the imposing forms of the exact sciences! It has well been said, that our ignorance may be concealed, but cannot be removed, by the vain parade of a *science foreign to medicine.*

In the following pages I shall have frequent occasion to make use of the terms *organization, vital properties, functions,*

and *life.* My time, and the limited space allowed in the pages of a journal, will not permit me to enter into the discussion of that already hacknied subject, *vitality.* But it is necessary here briefly to state, that I consider the above expressions intimately related to each other—*vital property* is the *acting power*—*organization,* the *instrument acted upon*—*function,* the *mode of action,* and the *phenomena* of life the *result.*

To the pride of man it is not a little mortifying, boasting as a mark of pre-eminence the *progressive knowledge* of his species, that we are obliged to retrace our steps, through the difficult and arduous paths of elementary science, back to the days of the immortal Hippocrates, a period upwards of two thousand years, for a *theory* of animal heat—which, after the successive labours of the innumerable hosts of chemists who have flourished since, until the appearance of Hunter and Bichat, (whose ideas on this subject we shall see differ very little from the father of medicine,) possesses more of the semblance of truth, and is more in consonance with the immutable laws of life, than is offered by any author with whom I am acquainted.

The generation of animal heat was thought by Hippocrates to depend upon the action of a "*vital principle* on *organized matter;*" and hence, that the function is not confined to any particular organ or part of the body.

About the period in which Boerhaave flourished, the science of physiology was subjected to a revolution equalled only by the ebullitions produced by Des Cartes in natural philosophy. The vigorous mind of Boerhaave was not exempt from the infatuation which seized upon the writers of the age, who resolved all the vital phenomena into attraction and repulsion. To the attrition of the fluids upon the solids of the body, or to the friction of the particles of blood against the sides of the vessels, or to fermentation and putrefaction, was successively ascribed the temperature of animal bodies.

To the first, it was objected, that no perceptible heat has ever been excited by the attrition or agitation of water or oil, quicksilver or other fluids, unless they have undergone at the same time some chemical change, as in agitating milk or wine till they become sour.

The two latter causes, or fermentation and putrefaction, would not be maintained at the present day by the least informed chemist.

It was thus that hypothesis succeeded to hypothesis, without any thing satisfactory having been offered, till Dr. Black gave to the world his celebrated theory of latent heat. Comparatively ignorant of physiology, he was led to draw false

deductions from the most clear premises, though his main principle, that latent heat is converted into free caloric, will be found to stand. Nevertheless, he erroneously confined the calorific function to the pulmonary organs, alleging, that in consequence of a reciprocal action of the blood in the lungs, and of the atmosphere, a portion of the latent heat of the latter was absorbed.

Nearly allied to the preceding is Dr. Crawford's theory, the essence of which is, that the capacity of arterial, for heat, is greater than that of venous blood—that there is no difference of temperature between the two ventricles of the heart—and, in fact, that the heat of all parts is nearly the same.

This apparently sound, and certainly beautiful theory, gained many advocates, and was admirably calculated to enlist such as are inattentive to the peculiar laws of life, or warm in the pursuit of a favourite science. But I hold it to be entirely untenable, as at variance with the fundamental laws of the animated being. "Whatever healthy mutations, whether of the solids or fluids, take place in that admirable workmanship, the human body, are the result, not of *chemical*, but *vital* agency—an agency independent of organization."

Next, I proceed to state my objections to this pulmonic theory, which has become so fixed and rivetted on the minds of many of the older, or electro-chemical physiologists, as scarcely to be shaken.

The lungs I shall at present consider as grand emunctories, whose principal function consists in eliminating an excrementitious matter out of the mass of blood. I readily admit, that the oxygen respired partly disappears, and that carburetted hydrogen is formed: it also seems probable, that the air respired may assume a more condensed form, or enter into combinations, producing new materials, possessing less capacity for heat. But it has never been proved, that the capacity of arterial blood for heat is greater than venous blood, though it is reasonable to suppose, that the materials to be discharged from the lungs must assume a more fluid *form*, and thus *absorb* heat. The sensible temperature of the blood in both ventricles is granted to be the same. Nevertheless nearly all the phenomena of health and disease militate against the chemical views of the origin of animal heat—some of the more striking of which I shall notice.

We frequently observe a local increase of temperature, as in the act of blushing—in topical inflammation—in chronic hepatitis, which causes a burning of the cheeks, of the palms of the hands, soles of the feet, &c., which cannot be explained by any of the theories of the oxydation of the blood.

Heat, moreover, continues to be evolved from the body some time after *apparent death* from acute diseases. I have dissected bodies warm twelve hours after death; while others, which died of a lingering disease, though otherwise under similar circumstances, have cooled in two or three hours.

The pulse in certain stages of fever is diminished in force and velocity, the system nearly exhausted, and the lungs, in particular, scarcely able to perform their office; and still we find the temperature of the body morbidly increased.

In phthisis, asthma, apoplexy, &c. the same phenomena present themselves.

A remarkable instance of the latter disease came under the observation of Mr. Hunter. "A gentleman was seized with an apoplectic fit; and while he lay insensible in bed, covered with blankets, I found," says he, "that his whole body would in one instant become extremely cold in every part, continuing so for some time, and as suddenly became extremely hot: while this was going on alternately, there was no sensible alteration in his pulse for several hours *."

That the heat of the body does not depend upon respiration, or the state of the circulation, has, indeed, been noticed by many writers. It is remarked by Dr. Rush †, that "during the fever of 1794, he found, that the burning heat of the skin, called by the ancients 'calor mordens,' and from which this disease, in some countries, had derived the name *causus*, was more common this year than the last; it was sometimes local, sometimes general; it had no connexion with the state of the pulse or circulation, for it was most intense at a time when the patient had no pulse."

We are told by Dr. Chisholm, that he "found the skin to be warm, whilst the pulse was at fifty-two degrees; and that it was sometimes disagreeably cold, when the pulse was as quick as in ordinary fever."

Exactly the same was observed by Senac in intermittents: "I have often seen," says he, "the lower extremities extremely cold, and the upper ones parched with heat ‡."

By some experiments of Mr. Hunter it is proved, that the egg during incubation has the power of generating heat; in which case, pulmonary influence is out of the question.

"Having taken," he observes, "some eggs from under a hen, when the chick was about three-fourths formed, I broke a hole in the shell, and introducing the ball of the thermometer, found that the quicksilver rose to ninety-nine and a half degrees. In some that were addled, I found the

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* Animal Econ. p. 91. † Med. Inq. p. 212. ‡ Senac, p. 25.

heat not so high by two degrees; so that the life in the sound egg assisted, in some degree, to support its own heat*."

He entertains the opinion, that this power of generating heat is peculiar to an animal while alive: it is a power only of opposition and resistance, since it is not found to exert itself spontaneously, but must always be excited by the energy of some frigorific agent or disease.

"It does not depend upon the motion of the blood, as some have supposed, because it likewise belongs to animals who have no *circulation;* and the nose of a dog, which is always nearly of the same heat, in all temperatures of the air, is well supplied with blood. Neither can it be said to depend upon the nervous system, for it is found in animals that have no brain or nerves. It is, then, most probable, that it arises from some other principle, a principle so connected with life, that it can and does exist, and act independently of circulation, sensation, and volition; and it is that power which preserves and regulates the internal machine. This power of generating heat is in the highest perfection when the body is in health; and in many deviations from that state, we find that its actions are extremely irregular†."

Much has been said by the advocates of the pulmonic theory, concerning the temperature of the blood in the left side of the heart being higher than that in the right. Experiments to ascertain this point differ very much in result. It is asserted by Drs. Crawford and Davy that there is no difference of temperature; while some, on the other hand, have maintained that the temperature was highest in the right ventricle.

If any difference exists between the arterial and venous blood, in the cavities of the heart, as respects their specific caloric, excepting what arises from the difference of specific gravity‡, it can only be accounted for by the superior power of the left ventricle; its parietes being composed of much more numerous muscular fibres, its actions much stronger, and the formation of animal heat in the part might be greater.

The temperature of parts differs according to the degree of vital action present. Mr. Davy found, in his experiments, that in the stomach of an ox, the pyloric compartment was of a higher temperature than the left ventricle itself. Thus, when the latter immediately after death was 103, the former

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* Animal Economy, p. 103. † Idem.

‡ The specific gravity of venous blood, without its fibrine, is 1050; that of arterial, 1047.

full of food was 104, 5, from the stimulus of its contents and increase of vital action.

This enables us to explain the fact, that the temperature of young animals, in whom all the vital actions are most energetic, is higher than adult animals, and much greater than in old persons — which was remarked by Hippocrates, "*qui crescunt, plurimum habent calidi innati, senibus autem paucus calor.*"

In confirmation of this remark, we have the experiments of Davy*, who found, in one instance, the heat under the axilla of a child just born 98, 5; after twelve hours, 99 degrees; and after three days, the same; during the whole of which time it appeared in perfect health. On five other children of the same age similar observations were made: in two instances of weak infants, the temperature one hour after birth did not exceed 96 degrees, which is two degrees below the standard heat of a man in perfect health — probably from the *general debility* of the subject of the experiment.

Of late, we have a theory, which attributes the production of animal temperature to the influence of the nervous system. The work of Dr. Wilson Philip on this subject, has attracted no inconsiderable share of attention. He supposes it to be generated by the action of the nervous influence on the blood, by which the formation of secreted fluids is effected, and consequently that heat is a secretion.

An hypothesis like this, could only have been framed on limited views of the animal economy. We are very liable to error by drawing hasty conclusions from a few isolated facts, as they occur in the higher grade of animals, without availing ourselves of those convincing evidences which are to be collected, by observing the phenomena presented in similar functions, in a more extensive survey of animal existence. Thus in the theories of animal heat, we have confined ourselves generally to the phenomenon as it exists in the vertebal animals.

Had Dr. Philip carried his observations on the animal economy a few steps further, he would have saved himself the necessity of retracting opinions which cannot be supported by a comprehensive view of the subject.

In relation to the lowest class of animals and vegetables, in which no nervous system has been discovered, Mr. Hunter found that the most imperfect are capable of an evolution of caloric. It seems to me that it is by no means established, that secretion is materially dependent on the nervous influ-

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* Eclectic Repertory, 1816.

ence: on the contrary, many facts are opposed to the supposition.

Man is emphatically, from the beginning, a secreted animal. In the fœtus in utero, assimilation probably is the only active function existing; at least, the whole glandular system, in the human fœtus, is quiescent: it is not till the blood has received the influence of the atmosphere, that we have urine, bile, saliva, &c.

The nervous influence being essential to the evolution of heat, how is it that the chick in ovo is capable of evolving it? in which, the heart may be seen performing its functions, when no appearance of brain, or spinal marrow, can be traced. If the sanguiferous and nervous systems were coexistent, the formation of the animal must begin at more than one point, which is contrary to the simplicity observed in the established laws of nature.

Were the nerves at all concerned in the formation of animal heat in the human subject, the influence must reside in those of organic sensibility solely, since we not unfrequently witness a total loss of nervous energy, while the power of evolving heat remains.

We have a case detailed by Dr. Parry, in which there was an extinction of pulse in one arm, with a coldness, though complete power of motion existed in it, while the other arm was warm, and had a perfectly good pulse, without, however, the power of voluntary motion*.

I witnessed a case some years ago, in the Pennsylvania hospital, which tended to prove that neither respiration nor nervous energy has much connexion with the function under review. It was a patient with a fracture of the dorsal vertebræ, and consequent pressure of the spinal marrow. The inferior extremities were totally deprived of nervous influence: and yet, the portions of the body above the injury were of a natural temperature, while all the parts below the fracture indicated by the thermometer a morbidly increased temperature. It is as needless as it would be easy to multiply facts of this nature.

In our speculations on animal temperature, we must at present be content with the knowledge of facts. To refer it to some general principle, belongs probably to the destiny of future ages. I cannot forbear, however, to cherish the suspicion, that heat is caused by a distinct and peculiar action of living matter. Be it called a secretion, it is a peculiar one; though, like the secretions in general, it is modified,

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* Parry on the Pulse, p. 139.

increased, or diminished by the operation of the passions and other states of mind.

Considered as a secretion, animal heat most probably enters the system with the chyle, in a latent form, and is set free by the action of the vessels upon their contents. What else produces those changes in the blood denominated secretions? Every one now seems convinced by direct experiments, that vessels so modify their contents, that the liquids and substances which the absorbents take up, become lymph, a fluid resembling blood, in their transit through the vessels, and that the chyle imbibed from the bowels is undergoing continual modifications, as it proceeds through its channels to the sanguiferous system.

There are secretions which not only are modified, but entirely wanting as we descend in the scale of beings. Birds, for example, have no salivary glands, and precisely the same occurs respecting the formation of animal heat, in that class denominated cold-blooded animals, as frogs, toads, lizards, snakes, &c. which "have no power of generating heat within themselves*," notwithstanding they breathe with lungs.

What effect low diet or starvation has, in diminishing the power of forming animal heat, is generally known. Do we not often meet with persons, who have been accustomed to abstemious living and otherwise temperate habits, with hands continually as cold as a lizard?

Warm-blooded animals inhabiting the ocean, perhaps from this circumstance alone, require a greater power of economising food, as the very action of keeping up animal heat may require an additional supply of nourishment.

In searching Bichat for his authority, I was glad to find that I did not very essentially differ from so distinguished a physiologist. "Le dégagement du calorique," says this author†, "est donc une phénomène exactement analogue à ceux dont le système capillaire général est le siége."

Again, "Le calorique arrive donc au système capillaire combiné avec la matière des sécrétions, avec celle des exhalations, et celle de la nutrition. Le sang est le fluide commun qui résulte des toutes ces combinaisons. Dans le système capillaire général, chaque partie se sépare; *le calorique pour se répandre dans tout le corps, et sortir ensuite au dehors*, les fluides des sécrétions pour sortir par les glandes; ceux des exhalations pour s'échapper par leur surfaces respectives; les nutritifs pour séjourner dans les organes."

Further, "Chaque système a son mode particulier de cha-

* Home's Comp. Anat. † Anat. Général, vol. ii. 523 and 524.

leur. Certainement il se sépare moins de calorique dans les cheveux, les ongles, l'épiderme, que dans tout autre système. Les organes blancs, comme les tendons, les aponéuroses, les ligamens, les cartilages, etc. en fournissent aussi moins probablement que les muscles. Examinez les pâtes des oiseaux, où il n'y a que ces parties blanches; elles sont bien moins chaudes que le reste du corps."

He, however, admits that some latent heat may pass into the system through the medium of the lungs, and attempts to explain in this manner the connexion between the size of the lungs and the quantity of heat disengaged. But it is not unlikely we shall find on examination, that the degree of heat evolved, is in proportion also to the quantity of ingesta.

Not long ago I heard it argued by a distinguished chemist, that animal temperature is produced by the assimilating functions, on the principle, that fluids converted into solids give out heat. But it was objected, that it is an acknowledged fact, that the absorbents are as active in converting the solids of the body into fluids. Each of these theories are, I think, to be discarded for the same reason, namely, that the ultimate particles of all bodies are similar, whether solid or fluid.

It may be added, that the temperature of a part is not increased proportionately to the assimilating function in energy, and conversely, as instanced particularly in the case of paralysis cited above.

I have thus endeavoured to show, chiefly by a train of negative reasoning, and I hope not unsatisfactorily, that the generation of animal heat, and the function of respiration, have very little if any connexion with each other, and in some animals, none at all. Believing ignorance to be preferable to error, no small point is surely gained, if former theories are proved to be fallacious, or at least inadequate to explain the phenomena of the case. It is not to be expected that this subject will be divested of obscurity, till we become much better acquainted with the laws of life, the importance of which, to physiology, and to the theory and practice of medicine, cannot be too highly estimated, though such inquiries have been by many condemned as purely speculative. We do not hesitate to calculate the fall of an apple from the tree —the projection of a ball from the mouth of a cannon—or the revolution of the moon in her orbit, knowing as little of gravitation, attraction, and projection, as we do of the cause of muscular motion, animal temperature, or any of the vital operations.

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

TO THE EDITOR OF THE LONDON MEDICAL REPOSITORY, &c.

Apothecaries' Hall, Oct. 5th, 1821.

SIR,—Referring to the correspondence between Mr. Wood, of Rochdale, Lancashire, and myself, as clerk of the Society of Apothecaries, published in the Number of your work for August last, I beg leave to send you the copies of a letter which, in consequence of that publication, I addressed to Mr. Kershaw, of Rochdale, (whose name is mentioned by Mr. Wood, in his remarks on the correspondence,) and of Mr. Kershaw's answer to my inquiry, which I shall feel obliged by your inserting, at your convenience, in your publication.

Any remarks by me on Mr. Kershaw's answer to my letter are needless, as every one who has read Mr. Wood's observations on the conduct of the Society of Apothecaries, will be able duly to appreciate the value and correctness of his remarks and insinuations.

With regard to Mr. Wood's "logic," I have only to request that he will reperuse the passage in my letter which is the subject of his facetious observation, and endeavour to understand very plain reasoning.

I am, Sir, your obedient, humble servant,

DR. UWINS, &c. &c. EDMUND BACOT.

Copy of a Letter from Mr. BACOT *to* Mr. KERSHAW.

Lincoln's Inn Fields, Corner of Serle Street, Aug. 8th, 1821.

SIR,—Referring to a correspondence between myself, as clerk of the Society of Apothecaries, and Mr. A. Wood, of Rochdale, concerning a Mr. Howarth of that place, which appears in the Number of the LONDON MEDICAL REPOSITORY for August last, in the remarks upon which Mr. Wood states, that without any explanation to him (Mr. Wood) or to Mr. Kershaw, all proceedings against Mr. Howarth for practising as an Apothecary are dropped,—I beg to draw your attention to the conversation which took place between yourself and me, when you called upon me in Serle Street, after the receipt from your clerk of the depositions of the different witnesses who had been examined with a view to substantiate Mr. Howarth's illegal practice. I think upon that occasion I stated, that it did not appear to me that such depositions were sufficient to prove that Mr. Howarth had been acting as an Apothecary, but that his practice consisted in selling quack medicines; and in this opinion, I believe, you then concurred with me,—and, if my recollection does not fail me, you said that you would acquaint Mr. Wood of the result of our meeting. As Mr. Wood, however, publicly accuses the Society of Apothecaries of having dropped all proceedings without explanation to him or to you, I think it proper, for the justification of that body, to request that you will state whether the above was not the substance of our conversation; and whether I did not at the same time say, that wherever any case appeared to

be fully supported by evidence, the Society were most anxious to enforce the Act. Mr. Wood, in his publication, insinuates that the reason of the Company's declining to proceed against Mr. Howarth was, " that it was discovered that the effects of Howarth would not be sufficient to cover the expenses." I am not aware that I stated any thing of that nature; nor do I think it likely that I should have done so, because I well knew that such a motive never had for one moment influenced the Society, in any case laid before them: and if you so understood me, it must have been through a misapprehension of what I stated. And, under all the circumstances, I think it but right to call your attention to the subject, and to request that you will favour me with an answer at your convenience.

I am, Sir, &c. &c.

(Signed) EDMUND BACOT.

To —— KERSHAW, Esq., Solicitor, Rochdale, Lancashire.

Copy of a Letter from Mr. KERSHAW *to* Mr. BACOT.

Rochdale, Aug. 20th, 1821.

SIR, — In the conversation which took place between yourself and me, when I called at your office in Serle Street, you stated it to be your opinion, that the examinations taken and sent up to you by my clerk, in Howarth's case, were not sufficient to prove that he had acted as an Apothecary, but that his practice consisted in selling quack medicines; and I fully concurred with you as to the evidence not being sufficiently strong to convict Howarth.

You then observed, that if a satisfactory case was made out against Howarth, the Society of Apothecaries would prosecute him; and at the close of our conversation, Howarth's situation and circumstances in life were mentioned; but you never stated that his poverty or want of effects would be a bar to the Society enforcing the Act against him.

I promised you to make the result of this interview known to Mr. Wood, which I accordingly did, on my return home.

I am, Sir, your most obedient Servant,

(Signed) JOHN KERSHAW.

To EDMUND BACOT, Esq.

[The following Correspondence we lay before our readers without note or comment; thus, as it will be seen, complying with the request of Mr. RING.]

Hanover Street, Oct. 11th, 1821.

DEAR SIR, — I herewith send you the letter from Chelmsford, which shows that the mock " Royal Jennerian Society" is extending its impositions and depredations, like the late Robert Young, of " philanthropic memory," who continued to send about his collectors, in great numbers, through town and country, long after he was dismissed from his situation; some of whom I saw in the active exercise of their vocation. One of them was transported; and the emissaries of the present bastard institution, as well as the principals, would share the same fate, if there were any public spirit amongst us.

The Jennerian Society was certainly culpable in discontinuing its functions, and more culpable in not giving public notice of it; but this cannot justify any body of men, and especially *such a body of men,* in assuming their name, and imposing on the public.

I beg leave to add, that the present society is disclaimed by Dr. Jenner, who cautioned the emperor of Russia against them; and by every re-

spectable member of the real Jennerian Society, who is well acquainted with the conduct of John Walker and Joseph Leaper.

Excuse the trouble I give; the occasion is important. You have the power, and, I am confident, will not want the inclination or resolution, to do justice to the public at such a crisis.

You must perceive that I have already exerted myself in this business; and my efforts have been crowned with success, as far as my "Caution" has been read; but the journals at that time were hostile to me, and favourable to my opponents.

At present I am fully satisfied that there is every disposition to do justice.

You are at liberty to make what use you think proper of this note; but please to omit the names of the parties at Chelmsford.

I remain, with great respect, dear Sir, Yours,

JOHN RING.

Chelmsford, Sept. 20th, 1821.

My dear Sir,—I trust you will have the goodness to pardon the liberty I take in troubling you on the subject of this letter. It is one of not merely a local, but of general interest, though it principally relates to a circumstance which has very recently occurred in this town, and other places in its vicinity. A person of respectable appearance has been employed, within the last ten days, in distributing packages among a selection of the medical men, the clergy, the attorneys, and others. These packages, which are delivered by him under the professed sanction of the Royal Jennerian Institution, contain a copy of the last annual report of that society; a printed circular, under the signature of the registrar and deputy treasurer, "Andrew Johnstone;" another letter, manuscript, under the same signature; and an engraving, purporting to be the honourable diploma of the establishment, filled up with the names of those persons respectively, to whom the same is stated to have been awarded, at a meeting holden May 20th, 1820. An intimation is also given in this letter, that the bearer, Mr. Binkes, (whose card accompanies the above,) will call again, on a subsequent day, for an acknowledgment of the *honour* conferred, and with authority to receive such *contributions*, *donations*, or *subscriptions*, (which are not expected to be less than *one guinea*,) as the new members respectively may be disposed to give. The renewed visit, so promised, has been in most instances paid (to myself among the rest); and the contribution has in most cases been refused, because a strong suspicion has arisen in the minds of many, "that the whole affair is a despicable hoax,"—or, in other words, a vile but ingenious artifice for the purpose of extorting money from the pockets of the liberal and incautious. If the fact be as supposed, the trick has, with a very few exceptions, completely failed; and if, indeed, an institution hitherto held so truly respectable, has lent itself to the practice of such an expedient for the improvement of its funds, its character must be at a very low ebb, its means of extension very feeble, and tending to utter insignificance. I should mention, that among the very few who have (as some of us believe) been duped by the imposture, and have paid money to "Mr. Litchfield Binckes," the pretended agent of the society, is Dr. ———, who was induced by the representation made that the bearer was of a respectable family at Hallingbury, in this county, a name perfectly well known to him; and this truly appears to be the case: but nevertheless it has been discovered, that the previous conduct and pursuits of the young man, (whose dress, manner, and conversation bespeak something of a superior cast,) have been considered as questionable in their nature, and that he has lived in habits of extravagance and folly. Under all these circumstances, my dear Sir, I am induced, at the request of my Professional

brethren and others, as well as to satisfy my own curiosity, to solicit the favour of your good offices, in making such inquiries as may tend to *unravel this mystery;* and to enable us, if the facts turn out to be as we suspect, to hold out a proper and necessary caution to others, and to expose the villany of those who are thus seeking to promote their idle designs by plundering the unwary.

N. B. Some of the packets enclosed glasses and points of virus.

You will much oblige us by an investigation of this matter, and a communication of the result of your inquiries, when convenient. In the meantime, believe me to be, my dear Sir,

Your sincere and faithful Friend.

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

[We publish this Letter because we think we are called upon so to do; but still let the reader understand, that we are not at all parties in the controversy. It ought again to be said, that we have heard from very intelligent pupils most satisfactory accounts of the nature of the examinations. One, indeed, that has just been detailed to us, would not have been too slight (excepting that it was in the vernacular language) even at the College of Physicians. — ED.]

GENTLEMEN, — Allow me to thank you for the very kind and prompt manner in which you inserted my last communication in the REPOSITORY; and if it will not be inconvenient, I shall feel exceedingly obliged by your giving this letter a place in your next Number. I am aware that the subject is not an agreeable one; but the immense importance of the question to a great majority of medical men, will, I hope, ensure its publication; and, at all events, I trust you will do me the justice to believe, that in performing the very ungracious task of exposing the mal-practices of the Society of Apothecaries, I am actuated by no motive, but that of anxiety for the honour and welfare of our Profession.

I expected some attempt would have been made, on the part of the Society, to explain the charges made, and indeed proved against them, in my last; and I cannot sufficiently admire their prudence in avoiding it. A fact has lately come to my knowledge, which places the liberality, public spirit, and "protection" of the Society, in a particularly clear point of view, and shows at once, beyond all cavil and dispute, what are its intentions.

A Solicitor of this town, at the request of the Surgeons of a neighbouring place, has stated Stott's case (alluded to in my last, but misprinted Holt,) to Mr. Bacot; and Mr. B. answers him by saying, that the Society are of opinion that the case is "an exceedingly proper one for prosecution," and will lend its name and authority for that purpose; but that the expenses, save and except the clerk of the court and the solicitor to the Society coming down, must be borne by the gentlemen promoting it. He then suggests, that the best plan of proceeding will be for the gentlemen to enter into a bond, that the Society "may be kept harmless," and afterwards inquires, whether, if a verdict were obtained against Stott, his effects would cover the expenses?

So that now the real state of the business is this. An Act is obtained, in part through the contributions of the general Practitioners, by which a certain body is vested with a right of examining all future candidates for general practice, and of demanding the sum of six guineas from each, by which this body is receiving from two to three thousand guineas annually. On an application being made to this Society to prevent a notorious in-

fringement of its rules, the individuals making the application are informed, that the prosecution, with all its risks, must be at their own expense!

How are we to reconcile this with the declaration made to Mr. Powell, in Letter VI.?—"The Society of Apothecaries *are, in every case which admits of its being done,* anxious to enforce the Act of Parliament." Here is a case pronounced by themselves a proper one for prosecution; and they not only give the lie to their assertion, in not doing it, but actually endeavour to palm the expense and responsibility upon private individuals! I now leave the Society to its own reflections.

In an introduction to my last paper, one of the Editors seems to be of opinion, that the examinations at Apothecaries' Hall are, in the main, strict and respectable. I can only say, that half a dozen of my friends, who passed in 1817 and 1818, some of whose names I am at liberty to mention, assure me, that their examinations were, if possible, more contemptible than my own. If they have improved since, I am glad of it*.

I have the honour to be, Gentlemen,

Your obedient and obliged Servant,

Rochdale, Oct. 5, 1821.

A. WOOD,
Member of the Royal College
of Surgeons, London.

DESCRIPTION OF A NEW BALANCE. BY W. HERAPATH, ESQ.

(*From* THOMSON'S *Annals of Philosophy*.)

Mr. H. has ingeniously contrived a balance without friction, or with as little as possible, which has always been a desideratum among chemists. He has, in a great measure, accomplished this in making one for his own use, by suspending the beam from a magnet. The scales are hung upon the points of needles riveted into moveable pieces. He has used it with 165 grs. in each scale, and has no doubt but it would have carried 250; it possesses this advantage, that the friction of the axis is reduced as the weight is increased, and, of course, it is most sensible with the greatest weight. The extremities of the magnet are convex to reduce the points of contact; the scales are made of jeweller's foil, and, with the beam, weigh 62·75 grs. When loaded with five grs. in each scale, 1-100th grain moves the index through an arc of 10°. The axis has knife edges, but he intends making one with points, and with two brass rings surrounding it, to prevent its falling in case of accident. He proposes to have a set of magnets of various strengths, so as to apportion the attraction to the weight.

PROCESS FOR EXTRACTING CINCHONIN FROM CINCHONA.

The following process is given by M. Badolier (Ann. de Chimie et de Physique, tom. xvii. p. 273):—A pound of yellow bark, bruised, is to be boiled in three pints of a very dilute solution of caustic potash (*eau alcalisé par la potasse caustique*). After the ebullition has continued for a quarter of an hour, the liquor is to be suffered to cool, and strained through a fine cloth with pressure; the residuum is to be repeatedly washed and pressed.

The cinchona thus washed is to be slightly heated in a sufficient quantity of water, adding gradually muriatic acid until litmus paper is slightly

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* Besides Stott being printed Holt, there are two or three other errors of the press; but they are in general such that the sense may easily be made out. In the latter part of my examination, however, by misplacing the inverted commas, I am made to say what really came from an examiner — an honour of which I am not particularly ambitious!

reddened, and stirring the mixture. When the liquor is near the boiling point, it is to be strained, and the cinchona strongly pressed; then add to the strained liquor, while it is hot, an ounce of sulphate of magnesia; after this, precipitate the whole with caustic potash, slightly in excess. When the liquor is cold, the precipitate is to be collected on a filter, washed, and dried, and then treated with alcohol, as directed by MM. Pelletier and Caventou, in order to obtain the cinchonin.

When sulphuric acid is added to the cinchonin immediately after the separation of the alcohol, crystals of sulphate of cinchonin are obtained, which, when washed with a little water, are of a very fine white colour.

ANALYSIS OF THE SULPHATES OF CINCHONIN.

M. Robiquet has analyzed three sulphates of cinchonin in the following manner, and with the annexed results. Equal quantities of each of the sulphates, which had been dried by the heat of a salt water bath, were dissolved in distilled water; and to each solution similar quantities of pure caustic potash are added. This decomposition effected with heat is attended with some peculiar characters. The solution becomes at first milky; and afterwards small oily drops swim on its surface; at last, when the heat has been long continued, the cinchonin coagulates, and unites into large white masses, which are opaque and very porous, and when these occur, the decomposition is complete. In order to finish the analysis, it remains only to filter the liquor, to separate it from the cinchonin, to wash the filter in the common manner, to supersaturate it with nitric acid, and to add a small quantity of nitrate of barytes.

The sulphate of barytes thus obtained, indicates, of course, that of the sulphuric acid contained in the salt under examination.

By this process, M. Robiquet analyzed the acidulous sulphate of the third crystallization, subsulphate of the first crystallization, and subsulphate of the third. The cinchonin, separated from the acid, did not contain any portion of sulphuric acid.

100 acidulous sulphate of cinchonin, third crystallization:

Sulphuric acid	19·1
Cinchonin	63·5
	82·6

100 subsulphate of cinchonin, first crystallization:

Sulphuric acid	11·3
Cinchonin	79·0
	90·3

100 subsulphate of cinchonin, third crystallization:

Sulphuric acid	10·0
Cinchonin	80·9
	90·9

(Annales de Chimie et de Physique, tom. xvii. p. 320.)

PURIFICATION OF INFERIOR BRAZIL WOODS.

Dr. Dingler observes, that the true Brazil wood being extremely scarce and dear, it may be interesting to state a method of substituting inferior kinds for it; those enumerated are Bois de Bimas, Sainte-Marthe, d'Aniola, de Nicaragua, de Siam ou de Sapan, &c. These woods contain fawn-coloured matter, which deteriorates the lustre of the red; this inconvenience is remedied by the following process:—The rasped woods are to be boiled

in water until all their colouring matter is dissolved. The decoction procured is to be evaporated until it equal to about 12 or 15 times the weight of the wood employed. In about 12 or 18 hours after the evaporated liquor is cold, skim milk, equal in weight to half the quantity of wood used, is to be added to it. When the mixture has been well stirred, it is to be boiled for a few minutes, and then strained through a fine piece of flannel. It will be then seen that the fawn colour will attach itself to the cheesy matter of the milk, and it is afterwards precipitated, without occasioning the slightest loss of the red colour.

In order to employ the liquor thus obtained in dyeing, it is to be merely mixed with a proper quantity of pure water; but if it is to be used for printing calicoes, it must be further evaporated; so that one part of wood shall yield only five or six parts of decoction. To this is to be added some starch, or other substance, to thicken it properly, and a sufficient quantity of solution of tin, or some other base, to brighten its colours. When printed, the colour is nearly or quite equal to that of the true Brazil wood.

The quantity of skim milk employed must always be in proportion to the quantity of colour contained in the wood made use of; one-third, or a fourth, of their weight, will be sufficient for young woods, as they are poor in colour. The evaporation must also be regulated by the same principle, when intended for printing.—*Annales de Chimie et de Physique.*

FISH FLOUR.

"The Indians in all the Upper Oroonoko fry fish, dry them in the sun, and reduce them to powder without separating the bones. I have seen masses of fifty or sixty pounds of this flour, which resembles that of cassava. When it is wanted for eating, it is mixed with water and reduced to a paste. In every climate the abundance of fish has led to the invention of the same means of preserving them. Pliny and Diodorus Siculus have described the fish bread of the Ichthyophagous nations, that dwelt on the Persian Gulf, and the shores of the Red Sea."—HUMBOLDT.

USE OF NITRATE OF SILVER IN MEDICINE.

The *Giornale di Fisica*, tom. xi., contains, at p. 355, a paper by Il C. Sementini, on the use of nitrate of silver in cases of epilepsy. After remarking on the difficulty which occurs in treating such cases, and the good effects which have been observed in using the nitrate of silver, and its superiority in this respect over all other remedies, both as to the effect it produces, and the little inconvenience it causes; the Cavalier states, that to secure the good effects belonging to it, the nitrate of silver should be well triturated with the vegetable extract, in combination with which it is given; that the first doses should be small, and the quantity gradually increased to six or eight grains, or even more, in a day: that the use should not be continued very long together; and that the patient should keep out of the action of light. The latter precaution is necessary, to prevent the discoloration of the skin, which sometimes happens after a long and copious use of this remedy. The precaution, however, only regards avoiding the meridian sun-light.

It frequently happens, in the use of this medicine, that a species of cutaneous eruption, consisting of small pustules, occurs. This may be regarded as a certain proof of the good effects of the medicine.

In the early part of this paper, Il C. Sementini, in endeavouring to remove the impression existing against nitrate of silver, because of its poisonous qualities, remarks, that being mixed with vegetable extract, it is not really the salt, but the oxide, that is given; and, therefore, the observations of M. Orfila, on the nitrate as a poison, have nothing to do with the

power of the remedy. At the same time, as an argument for using the nitrate in place of the oxide, it is remarked, that at the moment of decomposition a combination is, probably, effected between the extract and the oxide; and that actually the salt is found most efficacious.

Being assured of the use of nitrate of silver in epileptic affections, and reasoning upon its tonic effect, Il C. Sementini was induced to try its powers as a remedy in cases of paralysis. The first instance quoted is of a gilder, who, probably from the fumes of mercury, had become very paralytic. An eighth of a grain of nitrate of silver was prescribed at first, but the dose was increased every other day: by the time that three grains were taken the good effects were evident, and in twenty days more the man was perfectly restored. In another instance, every part of the body and limbs were paralyzed but the head. A small quantity was given at first, but it was increased to eight grains per day, and it effected a cure.

Three other instances are then adduced, in all of which cures were effected: and the Cavalier expresses his hopes, that, in the hands of other medical men, it will be found as effective and as important as in his own.

PHOSPHORESCENCE OF WOUNDS.

It is known that light is emitted from organized bodies, when putrefaction takes place under certain circumstances: the same phenomenon sometimes occurs in wounds; and doubtless a greater number of instances would be recorded, were they often dressed in the dark. Baron Percy, who, during twenty-five years of war, has had under his care more than a million wounded, has often been deprived of the advantage of light. It was thus that he observed in a young soldier the phosphorescence of a slight wound in the leg, for more than fifteen days. In this case it might perhaps be attributed to the man's having applied compresses dipped in urine to the wound: but some time afterwards, at the siege of Manheim, a vivid light, a true ignis fatuus, existed for more than six days over the wound of an officer, who had been dressed with compresses wetted with pure water only. Baron Percy has since had frequent opportunities of observing similar facts.

EFFECTS OF COPPER ON VEGETATION.

Some time since (says Mr. Phillips) I accidentally spilt some solution and oxide of copper near the root of a young poplar tree: in a short time the tree began to droop; the leaves on the lower branches dying first, and eventually those on the upper ones. On cutting a branch from the tree, I observed that the knife was covered with copper to the whole breadth of the branch, showing that the copper had been absorbed, and had undoubtedly proved fatal to the life of the tree.—*Ann. Phil.* ii. p. 77.

ON A NEW SALIFIABLE BASE. BY DR. G. BRUGNATELLI.

Dr. Brugnatelli, in pursuing his experiments on uric acid, has discovered a new salifiable base. This substance, with his experiments on it, have been described in a memoir read to the Royal Institute at Milan, on January 4, 1821. An abridged account of it is inserted in the *Giornale di Fisica*, t. iii. p. 464.

The new substance is produced by the action of liquid acids on uric acid. Those that have been used are the sulphuric, nitric, muriatic, and acetic; and the uric acid may be either that of calculi or of birds or snakes. It is formed by adding concentrated sulphuric acid, for instance, in small quantities at a time, to uric acid, until a thick paste is formed; it will occasion swelling, the liberation of gas, and a particular odour. When these signs

have ceased, add water; the mass will become very white, and, on standing, will separate into two parts. The solid portion is a neutral combination of the new base with sulphuric acid. The fluid is a portion of this compound dissolved in the excess of acid, and containing impurities. The sulphate is but little soluble in water; but the solution, decomposed by alkaline subcarbonates, yields a white light flocculent substance, which is the base in question. Muriatic acid is, perhaps, better than the sulphuric for the preparation of this substance, inasmuch as the muriate is more soluble. Acetic acid requires boiling to form it, and nitric acid produces it among other products at the time of its violent action.

The flocculent matter collected on a filter, appears like gelatine; in drying it contracts and splits, and when pulverized has the appearance of an earth. It has no taste or smell. It is slightly soluble in water, alcohol, acids, and alkalies. The impure acid solution is eminently distinguished by its property of giving a very fine azure precipitate with triple prussiate of potassa, and which may readily be distinguished, after a few experiments, from that caused by iron. It may, perhaps, be applicable to dyeing or painting. The neutral combination of the substance with acids does not give the blue precipitate, it requires for this purpose excess of acid.

This substance combines with various simple bodies. With iodine it forms a compound at common temperatures, of a dull yellow colour, resolved by heat into its two principles. When fused with sulphur they unite together; its compound with phosphorus is of a fine red colour, and when dissolved in water, occasions the formation of phosphuretted hydrogen, and a phosphate.

This substance has extraordinary powers of resisting heat. It might be taken for an earth, or metallic oxide, in this respect. The following are given as experimental demonstrations of its properties. An acid solution, put on a plate of zinc, gave a yellow spot with metallic splendour. This, well washed, dissolved in an acid, and tested by triple prussiate of potassa, gave a blue-white precipitate; the blue colour being attributed to the new substance. The solution that had acted on the zinc gave no blue colour with the test, but only a white.

A portion of it mixed with lamp-black and oil, and heated violently in a crucible for half an hour, left a reddish crust, the solution of which, in acids, gave an azure precipitate with the triple prussiate.

The azure matter burnt in the fire with facility, and left a residuum of a bright red colour, if the heat had been intense; but if moderate and continued, the residuum is scarcely red, and when placed in water produces flocculi of the substance and bubbles of the gas.

Ammonia dissolves the substance, making it first yellow, then green; when heated moderately, a residuum is obtained of a yellow metallic colour; if more heated it becomes white, and does not seem to differ from the substance first dissolved. The yellow matter dissolved in dilute acid gives a red tint to ferro-prussiate of potassa, which exposed to the air becomes green. Other changes take place.

Nitric acid appears to alter the nature of the new substance. When it is added in a concentrated state to the substance or its salts, the prussiate does not then produce a blue precipitate, but a yellow tinge. Sulphuric acid, when assisted by heat, offers similar phenomena.

One cannot help suspecting, that the blue precipitates in these experiments are occasioned by iron, and yet it is difficult to conceive how that metal, if present, should escape the observation of Dr. Brugnatelli. Further experiments are required, and of a more decisive nature, to clear up this matter.

A METEOROLOGICAL TABLE,

From the 21st of SEPTEMBER to the 20th of OCTOBER, 1821.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.		Barometer. Min.		Therm. Max	Therm. Min.	Rain Gauge	Winds.	Weather.
21	29	53	29	50	52	47	1,04	NE.	1 Rain....
22	29	53	29	43	68	54	05	NW.ENE.	1 Rain. 2 Sun..
23	29	32	29	28	69	51	07	E.S.	1 Mist.... 2 Sun.. 4 Rain.
24	29	53	29	44	62	40		S.W.	1 Sun..
25	29	53	29	52	60	47		WSW.	1 Sun.
26	29	46	29	44	71	52	01	SE.SW..	1 Sun. & Show.
27	29	48	29	43	63	42	03	SW..	1 Cloud.. 2 Sun. & Show.
28	29	45	28	78	61	50	30	S.SE..	1 Sun.. 2 Show....
29	29	20	29	08	58	45	11	SW...	1 Show.. & Sun..
30	29	40	29	11	56	47	02	SW....W..	1 Sun... 4 Rain.
1	29	59	29	06	59	45		WSW....	1 Sun.. & Show.
2	29	70	29	46	57	45	16	SW..W.	1 Sun.. 3 Cloud... 4 Rain..
3	29	27	29	24	68	49	11	SW..	1 Rain..
4	29	24	29	16	56	40	45	NW.N.	1 Cloud.. 2 Rain....
5	29	48	29	46	54	41		SW..	1 Sun...
6	29	49	29	48	65	54	08	WSW..SW...	1 Sun.. & Show.
7	29	57	29	54	65	51		SW...	1 Sun..
8	29	83	29	74	57	38	01	WSW..	1 Sun.. & Show.
9	29	80	29	73	57	39		SSW.	1 Sun...
10	29	65	29	54	57	45		SSE..	1 Mist... 2 Sun...
11	29	44	29	43	58	49	12	ESE..	1 Cloud... 2 Sun. 4 Rain..
12	29	86	29	73	57	37	01	NW.	1 Show. 2 Sun...
13	29	92	29	86	58	42		SW.	1 Sun.... 4 Cloud..
14	29	88	29	86	54	36	04	SSW.	1 Show.
15	29	86	29	84	54	36		W.WNW.	1 Sun...
16	29	87	29	79	53	35		NW.	1 Sun.... 2 Clo.. 4 Moon...
17	29	59	29	52	53	43	02	W.SW.	1 Sun.. 2 Show.
18	29	56	29	48	55	41		WNW..	1 Sun..
19	29	22	28	62	53	43		W.SW.	1 Sun 4 Cloud....
20	28	63	28	53	52	38	15	SE.SW..	1 Rain.. 2 Sun.. & Show.

The quantity of rain during the month of September was 3 inches and 28-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Anasarca, Apthæ, Catarrhus, Cynanche tonsillaris, Diarrhœa, Dolores, Dyspnœa, Epistaxis, Febris catarrhalis, Febris simplex, Gastrodynia, Hernia, Ileus, Obstipatio, Odontalgia Ophthalmia, Paralysis, Pertussis, Podagra, Rheumatismus chronicus, Scrofula, and Vaccinia.

THE METEOROLOGICAL JOURNAL,

From the 20th of SEPTEMBER to the 19th OCTOBER, 1821,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, High Holborn.

D.	Moon.	Rain.	Therm.			Barom.				De Luc's Hygrom.		Winds.		Atmo. Variation.		
20			56	62	55	29	95	29	82	62	60	W	W	Clo.	Rain	Clo.
21		,42	58	63	58	29	78	29	76	61	62	SW	SW	Rain	Fine	Rain
22			62	67	59	29	79	29	78	58	59	E	ESE	Clo.	——	Fog.
23			62	65	54	29	67	29	67	58	59	ESE	SSE	Fog.	Clo.	Fine
24		,11	56	64	51	29	64	29	91	54	55	NW	NNW	Fine	Sho.	Fine
25			54	65	54	30	01	30	02	53	61	NW	WSW	Clo.	Fine	Clo.
26	☽		59	64	59	30	00	30	00	66	65	W	SW	Clo.	Fine	Clo.
27		,13	60	66	59	29	88	30	00	60	59	NW	W	Rain	Fine	Clo.
28		,19	61	68	58	29	71	29	53	55	51	W	W	Clo.	Fine	Rain
29			58	60	46	29	65	29	71	51	49	W	NW	Fine	——	——
30			50	58	53	29	85	29	92	47	46	W	W	Fine	——	——
1			57	63	49	29	68	29	98	57	49	W var.	NW	Fine	——	——
2			53	62	50	30	15	30	12	47	48	NW	W	Fine	——	Fog.
3		,15	54	65	52	29	97	29	80	53	63	SW	WSW	Rain	Sho.	Clo.
4	☾	,34	58	65	44	29	64	29	48	64	59	SW	SW	Rain	——	——
5			48	61	49	29	85	29	91	51	60	NW	NW	Fine	——	——
6			54	60	55	30	00	30	08	60	59	NW	SW	Fine	——	——
7		,09	60	62	48	30	09	30	03	61	59	WSW	SW	Clo.	Fine	——
8		,21	53	63	49	30	09	30	21	55	51	WNW	NNW	Rain	Fine	——
9			55	64	47	30	17	30	21	53	50	SW	SSE	Fog.	Fine	——
10			50	61	48	30	13	29	91	50	53	SE	ESE	Fine	——	——
11	⊙	,10	54	64	54	29	77	29	65	55	61	SE	SSE	Fine	——	Sho.
12			57	65	50	29	82	30	13	55	55	NNW	NW	Fine	——	——
13			52	57	47	30	27	30	36	57	53	NE	NE	Fog.	Fine	Fog.
14			50	55	44	30	26	30	28	51	53	SW	WSW	Fog.	Fine	——
15		,17	48	52	44	30	18	30	21	51	55	NE	NNE	Rain	Fine	——
16			46	54	45	30	16	30	21	53	55	NE	NNE	Fine	——	——
17			48	54	44	30	17	30	10	59	60	WNW	W	Fine	——	Fog.
18	☽	,21	48	52	45	29	99	29	95	59	57	WNW	N	Rain	Clo.	——
19			48	53	45	29	81	29	67	60	58	W	SW	Fine	——	Clo.

The quantity of rain during the month of September was 2 inches and 15-100ths.

A REGISTER OF DISEASES

Between SEPTEMBER 20th and OCTOBER 19th, 1821.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	3		Febris *Remit. Infant*	11	
Abscessio	6		—— *simp.*	4	
Amenorrhœa	5		Furunculus	2	
Anasarca	9	1	Gastrodynia	16	
Angina Pectoris	1		Gonorrhœa *pura*	8	
Anorexia	3		Hæmatemesis	1	
Aphtha *lactentium*	2		Hæmaturia	2	
Apoplexia	3	1	Hæmoptöe	3	
Ascites	5	1	Hæmorrhois	10	
Asthenia	4	1	Hemiplegia	4	
Asthma	18	3	Hepatalgia	2	
Atrophia	2		Hepatitis	5	
Bronchitis *acuta*	4		Hernia	2	
—— *chronica*	2		Herpes *Zoster*	2	
Cardialgia	1		Hydrocephalus *incip.*	2	1
Carditis	1	1	Hydrothorax	1	7
Catarrhus	25		Hypochondriasis	1	
Cephalalgia	12		Hysteria	5	
Cephalæa	2		Icterus	1	
Cholera	23		Impetigo *sparsa*	1	
Colica	7		—— *erysipel.*	1	
—— *Pictonum*	4		—— *scabida*	1	
Convulsio	1		Ischias	2	
Cystitis	1		Ischuria	2	
Cynanche *Tonsillaris*	10		Leucorrhœa	5	
—— *maligna*	2		Lichen *simplex*	1	
—— *Trachealis*	1		Lithiasis	2	
Diabetes	1		Mania	1	
Diarrhœa	30		Menorrhagia	9	
Dolores	5		Morbi Infantiles*	28	
Dysenteria	6		—— Biliosi*	20	
Dyspepsia	29		Nephralgia	1	
Dyspnœa	4		Obstipatio	12	
Dystocia	1		Odontalgia	12	
Dysuria	4		Ophthalmia	15	
Ecthyma	1		Otalgia	4	
Eczema	1		Palpitatio	5	
Eneuris	3	1	Paralysis	6	3
Enteritis	4		Peripneumonia	15	
Entrodynia	10		Peritonitis	11	
Epistaxis	1		Pertussis	8	
Erysipelas	3		Phlegmasia *dolens*	1	
Erythema *læve*	2		Phlogosis	2	
—— *papulatum*	1		Phrenitis	1	1
Febris *Intermittent*	4		Phthisis Pulmonalis	15	9
—— *catarrhalis*	20		Pityriasis	1	
—— *Synocha*	4		Pleuritis	4	
—— *Typhus mitior*	6		Pleurodyne	9	
—— *Typhus grav.*	2	1	Pneumatosis	10	1
—— *Synochus*	12		Podagra	2	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Porrigo *larvalis*	1		Scrofula	4	1
——— *decalvans*	1		Spasmi	1	
——— *scutulata*	2		Splenitis	3	
——— *favosa*	2		Syphilis	18	
Prolapsus	2		Tabes Mesenterica	1	
Prurigo *mitis*	2		Tussis	4	
——— *senilis*	4		Tympanites	1	
Pyrosis	1		Vaccinia	12	
Rheuma *acutus*	14		Varicella	3	
——— *chronicus*	17		Variola	4	1
Roseola	1		Vermes	8	
Rubeola	7		Vertigo	15	
Rupia	7		Urticaria *febrilis*	1	
Scabies	37				
Scarlatina *simplex*	5		Total of Cases	781	
——— *anginosa*	1		Total of Deaths	—	34
Scorbutus	2				

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

Cholera still continues prevalent, and, in many cases, much peritonæal inflammation has followed the subsidence of the spasmodic action.

(From Mr. Gaitskell.*)*

I was lately called to attend a woman, 48 years of age, of a plethoric habit, intemperate in living, and very sedentary. She complained of a severe pain in scrobiculo cordis, extending to the right and left hypochondrium, great difficulty of breathing, and high fever. The skin hot; face bloated; pulse 140; urine scanty and high-coloured; body rather bound. She had been indisposed for many weeks; but sought no medical relief till three days before her death, which took place suddenly. I ordered her to be freely bled, blistered, purged, and put on regulated diet. Twenty-four hours after her decease the body was opened, and the following appearances presented:—

Two inches of fat under the integuments; the heart covered completely with fat, very small, and so tender as to lacerate on the slightest extension. The pericardium full of water, of a dark brown colour, with flato of lymph floating in it. The quantity of fluid a pint. The left lung filled with extravasated blood, and resembled, on cutting into it, a piece of liver. The right lung inflamed, but not adherent; surrounded by a quart of serum. The liver inflamed, hard, of a dark purple colour, studded with several red patches. The concave surface united by strong adhesions to the duodenum and pancreas. The pancreatic duct ossified, and fractured under the knife into several fragments. The large arch of the colon inflamed, and much discoloured. The omentum loaded with fat. The spleen, kidnies, and uterus, with its appendages, sound.

MONTHLY CATALOGUE OF BOOKS.

Dr. Conquest's Outlines of Midwifery; a new edition, 12mo. with Plates. Price 7s. 6d.

Pomarium Britannicum; an Historical Account of Fruits known in Great Britain. By H. Philips. Second Edition. 8vo. Price 12s.

An Essay on the Medical Application of Electricity and Galvanism, with a Concise descriptive Account of Disease. By James Price, Member of the College of Surgeons, &c. Price 6s. 6d.

On the Nature, Symptoms, and Treatment of the different Species of Amaurosis, or Gutta Serena. Illustrated by Cases. By J. Stevenson, Esq. Surgeon-Oculist to his Royal Highness the Duke of York, Member of the College of Surgeons, &c. Price 7s. 6d.

La Beaume on the New and Successful Treatment of Indigestion, Bilious, and Nervous Complaints—Deafness—Blindness, &c.; with a short Account of the Medical Efficacy of his Portable, Sudatory, or Warm Air Bath.

Preparing for Publication, Miscellaneous Works of the late Robert Willan, M.D., F.R.S., F.A.S.; comprising an Inquiry into the Antiquity of the Small-pox, Measles, and Scarlet Fever, now first published. Reports on the Diseases in London, a new Edition, &c. &c. in one volume octavo. Edited by Ashley Smith, M.D., Licentiate of the College of Physicians of London.

NOTICES TO CORRESPONDENTS.

Communications have been received from Mr. Morson and Mr. Churchill.

*** *Communications are requested to be addressed (post paid) to* Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE

LONDON MEDICAL

REPOSITORY.

No. 96. DECEMBER 1, 1821. VOL. XVI.

PART I.

ORIGINAL COMMUNICATIONS.

I.

An Account of the Lusus Naturæ that was seen in China. Taken by DR. MITCHEL, of the United States of America, in Canton, February, 1821.

[The following has been sent to us for insertion in the REPOSITORY; and we comply with the request, inasmuch as the account is more minute, and in several respects different from that which has already appeared in our Journal. — ED.]

AKÈ is now sixteen years of age, four feet seven inches in height, and possesses a frame rather delicate than robust. His pulse, which beats upwards of ninety strokes per minute, together with a certain meagreness of aspect, might lead to the opinion that he does not enjoy good health: but he persists in declaring his appetite and digestion to be excellent, and affirms that his general health is equal to that of other persons of his age and district; yet this lad carries about with him, in close attachment to his sternal and epigastric regions, the form of a child at least thirty inches long.

According to the report of his uncle, who has become his exhibitor, his entrance into the world was tedious and painful. The labour was at length happily completed; and after all her sufferings the mother survived, and has had since two well-formed children. So soon as the child made its appearance, the cause of the difficulty of parturition was explained. As large as children are at the period of birth, this boy had the headless form of a male child, nearly as

large as himself, attached by its neck, breast, and belly, to his breast and epigastrium. The sight of so strange a monster instantly produced in the attendants a determination to put it to death; but maternal tenderness, and the timidity of a young midwife, succeeded in preserving it from a fate to which, it is said, even perfect children are often exposed in this country. As the child was vigorous and healthy, the care of its mother was not lost on it; and as it increased in size, and became an object of curiosity, the wish to preserve its life increased by the prospect of its becoming one day a profitable possession.

Not originally so large as the boy himself, the parasite child did not keep pace with him in growth. If it ever had its limbs and body as well proportioned as those of its supporter, (a point which may well be questioned,) the dependent figure has lost its symmetry, and become extremely defective in structure. Although at a distance it has the appearance of a regularly formed child, on a closer examination we discover that it is far from deserving such an appellation. Besides the want of a head, we perceive that the left shoulder has no scapula! — that the spine cannot be traced *below the base of the right shoulder-blade*, &c. — that the distance between this bone and the top of the sacrum is not two inches — and that this short back, formed of soft parts, sinks deeply between the shoulders and pelvis, so as to give the trunk the appearance of being bent backwards. Proceeding downwards along the back part of the parasite, you find the pelvis large and well formed, the buttocks plump, and the anus imperforate, a deep dimple occupying the place of this posterior outlet. On turning the parasite round, which the boy readily accomplishes with his proper hands, the belly and organs of generation are brought into view. The first thing to be now observed is, that the adhesion of the two bodies terminates below, about two inches above the pubes of the dependent, and one inch above the navel of the supporter, making the length of the adherent surface nearly eight inches. Nothing like a navel can be discovered on the abdomen of the parasite, or in the lower angle of the junction. The navel of the main body has the appearance of a double navel, owing (according to the lad's own account) to an ulceration produced by the continual attrition of the parasitic belly. To obviate this, he now wears a roll of cloth between the two bellies. The organs of generation are very strongly developed. A penis three inches long, increasing as it erects itself, and a scrotum which might contain the testes of a vigorous adult, are no inconsiderable *furnishings* for a headless boy of sixteen years

of age, and thirty inches of stature. On examining the scrotum, no testes were to be found, but a tumour at the abdominal ring of the left side. The peculiar pain occasioned by pressure, together with the capability of erection exhibited by the penis, warrants the conclusion that the parasite has at least one testicle. A congenital phymosis prevents the retraction of the pressure. A probe, however, passes readily round the glans penis, and shows this part of the structure to be in a natural condition. The timidity of the lad renders the examination of the urethra impossible; but it seems pervious, and emits from its orifice drops of a secreted matter, which by the Chinese has been called its semen.

The limbs of the parasite, where they join its body, are round and plump; but gradually lose this appearance, and degenerate into tenuity, towards the extremities. Nature appears to have been incapable of finishing this anomaly, and has left the hands and feet imperfect. The fingers are complete as to number, but are very feebly developed. One of the feet is clubbed, whilst only three toes are found at the extremity of the other. The circulation, indeed, is so feeble in the hands and feet, that they are cold even in the warmest weather. All the joints of the arms admit of a limited motion. Those of the lower extremities are stiffened; the hip joints probably by anchyloses, the knee joints by strong adhesions between the back of the thigh and the calf of the leg. According to the story of the boy and his uncle, he could, when four or five years of age, by his own volition, move these limbs, which (now incapable of voluntary action) require his proper hands to alter their position. At that time of life he was sprightly and playful, though much obstructed in his gambols by his dangling companion.

To remedy this evil, as well as to keep the little limbs out of the way of injury, Akè's mother tied *the shins* to a sling, which depended from his neck. The effect of this bandage was to bend the thighs, and to bring the heels nearly into contact with the buttocks. In fact, though not resting on its knees, the parasite is in a *kneeling posture*, with the soles of the feet turned towards the spectator, when standing in front of the lad. By this flexure, the knees of the dependent came into contact with the trunk of the opposite body; and, passing to the sides of the pelvis, are opposite, as if the little appendage were attempting to climb. By degrees, (if we may credit the testimony of my Chinese informants,) the disused and suspended members lost the power of responding to the will of their owner, and became so rigid as to maintain their artificial posture without the support of a sling. The

direction of the sling along the sides of the parasite necessarily confined its arms; and, though not immoveable, their joints cannot be flexed without external aid. The hams, soon after the suspension of the limbs, became excoriated; granulations sprung up; and an adhesion of the calf of the leg to the back of the thigh entirely destroyed the mobility of the articulation at the knees. As before mentioned, there is only one shoulder-blade, attached to the arm of the right side. This bone is so large as to extend across nearly to the place where the left humerus lies buried among muscular matter. This scapula crosses the course of the spine, which dips under it, and cannot be felt to emerge from its lower edge. The connexion of the humeri and scapulæ with the neighbouring parts is so loose as to permit them to be moved, in a sliding manner, from the sacrum of the *parasite* up to near the top of its neck. The left humerus was fractured, about two years ago, by a fall from a buffalo. Having been carelessly treated, it has a considerable bend at the place of the fracture; but is now firmly united, and exhibits the bony ring felt after recovery from such accidents.

The chest of the parasite (if a fleshy sac deserve such a name) is by far the most anomalous portion of this monster. The belly and chest appear to be one large *muscular* bag, the upper part of which is united in front to the forepart of the chest of its supporter. It has no regularly formed ribs nor sternum, so far as I could discover. In place of these, the thoracic part of the junction is bounded by a firm ridge, probably of bone, which arises from the front of the principal to the height of an inch, and to which the sides of the sac attach themselves. Within the area bounded by this ridge, there appears to be a vacuity in the bony structure of the principal's chest; so that if the two chests do not form one cavity, they are only separated from each other by soft parts. There is more proof of this defect than the touch alone affords; for when the boy coughs, or breathes forcibly, the sac of the parasite is puffed up like a bladder, and is elevated far more than the ribs of the principal; evincing most conclusively, that either air or soft parts have been forced into it. The deficiency of bone, and the flexibility of soft parts, enable the boy to rotate the little body, so as to bring its buttocks into contact with his proper belly, and to afford the spectator a front view of the organs of generation, and of the body of the parasite. In doing this the belly and chest are much twisted, and the skin thrown into great wrinkles. On the sides of the sac of the parasite are found its nipples, which are not more than an inch and three quarters from its anterior and superior spine of

the ilium. The nipples of the principal are in a line with the shoulders of the parasite, and at least an inch beyond them. The neck of the dependent comes off from the median line of the sternum of the principal, about an inch and a half below the top of that bone. From this point to the place where the spine is lost under the scapulæ, the spines of three vertebræ are discoverable.

After a minute and lengthened examination of the parasite, I could not discover a pulsation any where but in the femoral artery of one limb: even there it is obscure. As far as could be ascertained, the action of this vessel synchronized with that of the radial of the principal. Although my fingers were plunged in every direction among the soft parts of the body of the child, I could discover nothing like the action of a heart, and may, I think, fairly conclude, that no heart exists there.

Dr. Livingstone states, on the authority of Dr. Gomez, of Macao, that the carotids have been felt. Allured by the hope of ascertaining, by means of their pulsation, in what direction *the tide* of blood flows along the neck, I searched most carefully for the carotids (as they were called); but could not perceive any thing like pulsation in any part of the neck. The uncommon sensibility of the neck of the parasite, it is true, rendered it extremely difficult to make a satisfactory search; but I did enough to render it probable Dr. Gomez was mistaken.

To amuse the vulgar, to whom the poor boy has been presented as a show, his keepers have spread a report that the two bodies urinate in concert, and that there is at times a seminal discharge from the penis of the parasite. Sometimes they have been urged to give practical proof of this synchronous micturition; and have then said, that the principal made water as other men do, but that on every second or third day, (I forget which,) the *little* gentleman accompanied him in this operation.

To make the monster still more wondrous, it was stated to the public, that the body of the principal referred to itself any pain endured by the parasite, and that a sly pinch of the dependent hip caused the sudden application of the hand of the other to his proper hip. All this fine story, however, was flatly contradicted by the boy himself, who was under the persuasion, during his examination, that I knew all that had ever happened to him. It was evident enough, without his confession, that the tale of vicarious suffering was untrue; for the parasite is possessed of even a morbid sensibility; and Akè frequently scratched the nates of the child, without repeating the process on his own proper hips. The penis, he

says, has never urinated; nor has he ever seen any seminal discharge from it, although that member is mutable both by imagination or titillation. When erect from the latter cause, the proper penis of his own body did not take on a similar action.

As the models and drawings of this lusus naturæ have been made by Chinese artists, (who pay little attention to proportions,) it has been thought best to append to this statement a table of the dimensions of the parasite's body and limbs.

Table of Dimensions of the Parasite.

1. The whole length of the parasite from neck to heels, thirty-one inches.
2. The length of the lower extremities, nineteen inches.
3. The length of the body and neck, twelve inches.
4. The length of the arms, from the shoulder to the end of the fingers, eighteen inches and a half.
5. The distance between the base of the scapula and the top of the sacrum, one inch and three quarters.
6. The length of the back of the neck, two inches.
7. The length of the left foot, which has three toes, five inches.
8. The length of the penis, when depending, is three inches; its circumference, two inches and a half.
9. The circumference of the body above the pelvis, ten inches.
10. The circumference of the pelvis, eighteen inches.
11. Round the knee and adhesions of the ham, fourteen inches.
12. The arm at the turn, (its circumference,) seven inches.
13. The elbow, six inches.
14. The middle of the fore-arm, three inches.
15. The length of the union is seven inches and a half.
16. The circumference of the united surfaces, seventeen inches and a half.

(A true Copy, word for word.) J. S.

N. B. I think he often makes mistakes in his anatomy; viz. in describing the scapula, pelvis, sacrum, vertebræ, &c.

Another Table of Dimensions, taken by a Friend.

1. The boy himself is four feet six inches high.
2. The distance from the junction (point of) to the forking of the upper extremities of the monstrosity, is three inches.

3. Two inches and a half below that (the forking), there ceases to be any bony spinal column.

4. From its termination to the commencement of the pelvic cavity (behind) is only one inch.

5. The circumference of the monstrosity, at its connexion with the principal, twenty inches.

6. The circumference of the pelvis, twenty inches.

7. Length of a humerus, nine inches.

8. Length from the olecranon (point of) to the wrist, five inches and three quarters.

9. Length from the wrist to the point of the midfinger, three inches and a half.

10. Length from the trochanter to the patella (or knee), nine inches and a half.

11. Length from the patella to the fore-foot, six inches.

12. Length of the foot, from the os calcis to the point of the great toe, is five inches and a quarter.

N. B. The difference in these admeasurements is considerable in some parts. The person who took this admeasurement also wrote a description of the lusus. I have not seen the description; but I believe it is the best, being the most correct, as he had the use of the boy a very long time, and took considerable pains in ascertaining physiological facts. They seem to be very scanty in the anatomical terms of appellation to the different points of the lusus. I saw and examined the lusus myself; but had not time, from commercial pursuits, to take the admeasurement, description, &c.

II.

On a New Preparation of Bark. By J. Morson, Chemist, Fleet Market.

I take the liberty of offering some few observations on a new preparation of bark, discovered in France, by Messrs. Caventon and Pelletier, which has been employed with decided success by several celebrated French medical Practitioners: and should they be thought worthy notice, I shall feel myself obliged by their insertion in the Medical Repository.

Although of late years, from the number of new substances introduced into medicine, which have been found, on trial, not to possess the virtues attributed to them, medical Practitioners have sufficient reason for rejecting any new or fanciful medicine, yet I apprehend that the preparation I am about to offer a description of will, in a great measure, be

found free from the objections to which emetine, morphine, and some others, are liable.

Without entering into any details concerning the chemical composition of this substance, to which the name of sulphate of quinine has been given, I shall simply detail the most economical process for preparing it, as given by Mons. Henry, fils, of the Pharmacie Centrale, Paris, who has prepared it, in considerable quantity, for the use of the French hospitals, and which process I find to answer perfectly well, and by which I can prepare it at a sufficiently moderate price, — at least, much more economically than by the discoverer's process.

Boil for half an hour 2℔ of the bark of cinchon. lancif. in powder, in 16℔ of distilled water, acidulated with two ounces of sulphuric acid; strain the decoction through a linen cloth, and submit the residue to second ebullition in a like quantity of acidulated water: mix the decoctions; and add, by small portions at a time, powder of lime, constantly stirring it, to facilitate its action on the acid decoction. (Half a pound is near the quantity requisite.) When the decoction has become slightly alkaline, it assumes a dark brown colour; and deposits a reddish brown flocculent precipitate, which is to be separated by passing it through a linen cloth. The precipitate is to be washed with a little cold distilled water, and dried.

When dry, it is to be digested in rectified spirit, with a moderate heat, for some hours; the liquid is then to be decanted, and fresh portions of spirit added, till it no longer acquires a bitter taste. Unite the spirituous tinctures, and distil in a water bath, till three fourths of the spirit employed has distilled over.

After this operation, there remains in the vessel a brown viscid substance, covered by a bitter, very alkaline, and milky fluid. The two products are to be separated, and treated as follows:—

To the alkaline liquid add a sufficient quantity of sulphuric acid to saturate it; reduce it, by evaporation, to half the quantity; add a small portion of charcoal; and, after some minutes' ebullition, filter it whilst hot; and crystals of sulphate of quinine will immediately form.

The brown mass is to be boiled in a small quantity of water, slightly acidulated with sulphuric acid, which will convert a large portion of it into the sulphate of quinine. The crystals are to be dried between sheets of filtering paper, at a moderate heat.

Two pounds of bark will, if care be used in the operation, give from five to six drachms of the sulphate, eight grains of

which may be considered as equivalent to one ounce of bark. This medicine has been particularly employed in intermittent fevers, in doses of from four to five grains three times a day. It has likewise been tried with success in various stages of consumption.

As this preparation is considered to possess the whole of the active properties of bark, I need not expatiate on the various advantages to be derived from its use, independent of its elegance as a pharmaceutical preparation.

A variety of curious chemical details relative to the analysis of bark have been published in Paris; but which, as they do not regard its medical properties, I have considered as foreign to the object of the MEDICAL REPOSITORY.

III.

On Iodine. By T. M. W.

IN the last Number of the MEDICAL REPOSITORY is inserted a paper respecting the use of iode, or iodine, as a cure of bronchocele, and also of scrofula, by Sir A. Halliday; to which valuable communication I shall beg leave to add a few remarks. The new remedy possesses most active powers, and requires great caution, though not more than many of those already in use. Should it be proved to possess specific powers against scrofula, it will be a discovery of the greatest importance, superior even to the introduction of vaccine inoculation. Sir A. Halliday considers it as effectual in scrofula as mercury in lues: may it prove so!

It appears to be a remedy possessing high powers of excitement; and cannot be used with safety in the florid scrofula, where there is a disposition to great vascular irritability. It will probably be found chiefly useful in a languid state of the circulation, accompanied with a torpor of the lymphatics. With respect to its internal effects I have no doubt; all agree in its activity. With regard to its use externally, I hesitate; having no conception of the power of any remedy to act in so short a time upon substances placed under the skin, except mechanically, or as a rubefacient. Mercury, indeed, does act upon the skin, and dissolves indurated parts beneath; but I suspect this, when it occurs, to arise from its being taken into the system by absorption, and producing increased action of the lymphatics generally. Iodine may act in a similar manner; if it does, its value, in my estimation, will be greatly enhanced.

The symptoms called *iodynic*, produced by too large doses of the remedy, so nearly resemble those of hectic, that

the prudent Physician will be cautious in exhibiting it where a predisposition exists; nor will he, without more decided experience, trust to the assertion that these symptoms disappear when the medicine is discontinued, or that they are easily removed by a milk diet, *tonics*, and *antispasmodics*.

The following extracts from the letters of two respectable Physicians, though perhaps intended to dissuade from its use, appear to me rather tending to excite medical men to use the iodine more generally, though more cautiously. Dr. Nordhof, of Aubonne, (Allgemeinen Medic. Annalen, 1821,) observes that the iodine is to be obtained in every Apothecary's shop, and is very generally used for the cure of bronchocele, both by Physicians and the common people. In many instances the swelling has been removed, when the stomach was capable of bearing the remedy. "But of late," he adds, "some melancholy instances have occurred of its violent effects. A person who had used the iode for the cure of goitre died in the hospital at Lausanne; and on opening the body, the stomach was found quite corroded. An old lady had succeeded, by the use of iode, in removing a goitre; but in consequence of its use, (whether proper or improper, is not mentioned,) now lies dangerously ill, without hope of recovery. The violent effects of iode (continues Dr. N.) are now so well known, as to excite doubts respecting the propriety of using it: and at Geneva, it is said that the exhibition of iode has been publicly forbidden." In the 15th volume of the Bibliothèque Universelle des Sciences, Belles Lettres, et Arts, Dec. 1820, a brief notice of the use of iode in bronchocele is inserted by the editor. No experiments respecting its use are given, but merely cautions concerning its dangerous tendency. These cautions, however, rather excite us to give the remedy a fuller trial. "Many observations have been transmitted to us," says the editor, "respecting the danger arising from the use of this remedy, even when administered by a prudent Physician." According to these, it appears that certain constitutions are affected violently by such a dose as others bear with impunity — and, of course, that the effects are very irregular. "We shall receive," he adds, "and make public, every thing in praise or dispraise of the iodine; but whilst the trial is pending, it will be most prudent to suspend our judgment."

The following remarks, extracted from a letter of Dr. Golis, of Vienna, to Dr. Ehrhart, at least bear testimony to the active powers of this remedy. "My observations on the effects of iodine do not speak much in its favour. In females, where I wished to produce or to regulate the menstrual discharge, from four to six drops of the tinct. iodinæ,

given twice a day in a proper vehicle, produced the desired effect upon the uterine system, but, at the same time, injurious effects upon the lungs. The continued use of this remedy for only a few weeks, in so small a dose as above mentioned, produced a dry cough, and sputum streaked with blood. All the patients who took this remedy complained, after ten or fourteen days, of a peculiar pain in the thigh; and, in some instances, paralysis of the lower extremities is said to have followed large doses, especially when the remedy had been employed in cases of impotency. In cases of bronchocele, I did not remark its effects to be superior to those usually employed in bronchocele. In females, and particularly in old unmarried women, it hastened the change of scirrhus uteri into open cancer; exciting, also, the most dangerous hæmorrhages from the uterus. In my further experiments, I shall be extremely careful in exhibiting the iodine in doses of more than twenty drops for a dose."—*Medicin. Chirurg. Zeitung.*

I observe the iodine is advertised for sale in Germany, at (I think) sixteen florins per ounce. The florin is about two shillings sterling.

Dr. Ehrhart is, in my last communication, erroneously printed Chrhart.

IV.

A Case of Apoplexy, in which the Oil of Croton was given with apparent Advantage.

[The envelope of this communication has been unfortunately mislaid; and we cannot, therefore, give the author's name.— Ed.]

Mrs. Cole was attacked with intense pain in the head, which was accompanied by transient loss of recollection. From this state she quickly recovered, and became violently sick. The skin was cool; the pulse quick, but regular and full. Twenty ounces of blood were taken from the arm; and a bolus, composed of ten grains of calomel, with as much of the extract of colocynth, was given, and the dose ordered to be repeated in an hour. A strong cathartic enema was injected. After the second dose of calomel she became oppressed and incoherent, and gradually sunk into coma. The bleeding was repeated, leeches applied to the head, and sinapisms to the feet, and the injection ordered to be repeated every hour. At the end of six hours no effect had been produced by the purgative; she continued in a

state of profound stupor, breathing slowly, and with great effort. This state of insensibility, precluding the use of medicine in its usual forms, induced me to try the effects of the oil of croton. A drop was placed upon the tongue, the bleeding repeated, and cold applications applied to the head. At the end of four hours the bowels were copiously relieved, a very considerable purgative effect continued, and she became at last perfectly sensible. The action of the bowels ceasing for four hours, she again sunk into a state of stupor. The oil was repeated, leeches again applied to the head, and the sinapisms renewed. The bowels were again actively excited, and the same relief followed. The purging was kept up by the exhibition of saline and resinous purgatives. By the adoption of measures which it is not necessary to detail, my patient is gradually recovering.

That the relief obtained in this case was closely connected with the profuse discharge which took place from the bowels, will scarcely admit of doubt. Whether the oil of croton, or the calomel which was previously given, produced the purging, it may not be so easy to determine. I am induced to attribute it to the former; not only from the known qualities of the medicine, and from the effects which followed its repetition, but also from the state of stupor in which my patient continued some hours after the calomel was given, evincing an absence, or at least no great increase, of intestinal secretion. Its operation was not very violent, nor did it occasion more distress than usually accompanies the effects of active cathartic medicines. Attributing the decrease of diseased action to the purging, and the purging to the oil of croton, the result was highly gratifying, and induces me to hope, that the medicine will be found eminently useful in attacks of disease in which the animal functions are suspended.

I firmly believe that considerable advantage was derived from the use of the tincture of colchicum, prepared from the seeds. It was given with the purgative, after evacuations had been carried to an extent, the propriety of which the emaciated state of my patient led me frequently to doubt. That extreme restlessness which invariably attends an increased momentum of blood directed to the brain, was greatly, and I may almost say immediately, controlled by it. The effect of the purgative was not increased, though its operation did not occasion so much distress; nor, indeed, was there any other perceptible difference, than a decrease in the frequency and force of the heart's action.

V.

A Case of Labour in which the Placenta was expelled before the Child. By H. W. Bailey, of Thetford.

[Communicated by Dr. Merriman.]

Mrs. Adams, aged thirty-two years, a well-formed woman, had spoken to me to attend her in the beginning of the month of September last, being her fourth pregnancy. Her former labours had been very natural, requiring but little assistance from her medical attendant. Three weeks previously to the time she expected her confinement, I was suddenly and in haste requested to attend her, as she was supposed to be dying. On my arrival, August 12th, she was sitting upon a chair, extremely faint. I understood she had been exerting herself that morning, by washing, &c., when she was taken with a sudden and violent flooding, accompanied by an extreme degree of bearing down, which, to make use of her own expression, felt "as if the head of the child was in the birth."

Conceiving it might be a case of placenta presentation, and as she had been in this state an hour before I saw her, I immediately ordered her to bed. It is more easy to conceive than to describe the alarm of those around her, and her own agitation. She felt assured she must die. In the act of stepping upon the bed she was taken with pain, during which the placenta was forcibly expelled, and was suspended between the thighs by the funis. At this moment a deluge of blood followed; and she sunk down senseless upon the bed, to all appearance dead. The countenance very pallid, assuming a death-like character; the pulse imperceptible; and an universal cold and clammy perspiration. Under such alarming symptoms, no time was to be lost in the speedy delivery of the child. At the same time, means were resorted to by the attendants to excite the circulation in the extremities. I stated to her relatives that the child would, in all probability, be still-born: and in the present case, it acted as an extraneous body; therefore, the only chance of saving life was by immediate delivery.

Upon examination, I ascertained the os uteri to be completely dilated; and, the extreme parts being much relaxed, no difficulty occurred in the introduction of the hand into the uterus. The head presented at the brim of the pelvis, the face to the right ilium, and the funis twice round its neck, and then, passing behind the left ear, was continued to the placenta. By insinuating my hand by the side of the

head, I easily took hold of the feet, and delivered the woman of (to all appearance) a still-born child. During the time of the turning, the hæmorrhage was alarming; and large coagula were present in the uterus, which were expelled as soon as the child was born. The uterus was immediately excited to contraction by pressure externally, and the hæmorrhage ceased. The child being given to an attendant, and ordered to be put into warm water, and the region of the heart rubbed with some spirit, until I could leave my patient, my attention was directed to her recovery. By the administration of cordials, warmth applied to different parts of the body, and frictions, I had the happiness of seeing my patient gradually recover from so near a state of death. The child, soon after being put into the water, &c., made a convulsive effort to breathe; and, by the means usually had recourse to in cases of suspended animation, its restoration was completely effected. The mother and child are now both in good health.

But few cases are on record in which the placenta was entirely expelled before the birth of the child, attended, as in the above case, with such an alarming hæmorrhage. In Chamberlain's translation of Mauriceau's Work on Midwifery, in chap. xxvii., some observations occur upon this description of labour. In the present case I had no time for reflection, nor could I call a consultation. The life of my patient was in the most imminent danger, her powers sinking fast; and, in all probability, the child would not have been born by the natural efforts of the uterus. Under such circumstances, the only chance seems to be from immediate delivery; and I believe we have sufficient authority for such means being used.

VI.

Observations relative to Obstructions in the Small Intestines; the Necessity of Early and Copious Injections, and the Want of a proper Apparatus for that Purpose. By Thomas Stokes, Thornbury, Gloucestershire; Member of the Royal College of Surgeons, and Licentiate of the Society of Apothecaries.

Simple as constipation may appear in its nature and treatment, and without presage of death, yet remedies meant to do good may prove or assist in being the causes of an aggravated and fatal malady. The insidious foe of human life often assumes the guise of some unsuspected form, taking us by surprise; and the cold hand of death lays hold on the

victim from his ambuscade, when his presence is quite unlooked for.

Let me briefly relate a case not uncommon in practice. A person complains of a dull pain and weight just below the stomach, and describes the bowels as not being well open. An aperient is prescribed, which after a little while is brought up. Another dose of some cathartic is then given — suppose calomel combined with opium; and warm applications made to the belly. After a little time, the stomach again ejects its contents. Various medicines are tried, but none stay on the stomach; and bile is found mixed with what has been taken in. The Practitioner sees himself warranted in resorting to clysters, bleeding, blistering, and cataplasm, in the order they may appear necessary. These remedies succeed not as hoped for: the sickness continues; the pain becomes more acute, and the poor sufferer very restless, and importunate for relief. The eyes are widely uncovered, and gaze anxiously around; there is a hiccup and yawning cry that tells of death; a cold sweat breaks out over the body; and the cold, livid shades of mortification rapidly overspread the dying patient. — Let me now look back, and reflect a little on the complaint and its remedies. The contents of the bowels, badly assimilated, are detained, probably, high up in the intestinal canal, producing constriction and pain. An increased excitability may be thus communicated to the stomach: and as physic is commonly nauseous, both these causes may concur to produce vomiting, aided also by other things taken. On repeated doses being given, they are rejected; and this action of the stomach probably dislodges a considerable quantity of bile, which, not finding an easy egress below, and the duodenum participating in the action of the stomach, finds an easy passage through the pylorus, where it may then become the distressing cause of its own frequent ejection. If calomel have been given, it may be so much the worse, from its adding to the biliary secretion. The clysters, although attended with some evacuation, have not reached the original seat of complaint; and the other remedies have, perhaps, only added to the restlessness and weakness of the patient, who has sunk in misery with the dead. — Pausing here, might we not wish that fewer medicines and fewer things had been given by the mouth, as the vomiting then might have been less wearisome? — and might we not also wish that the injections had reached the part affected with obstruction? for the complaint might then have been removed. The means, however, we possess for the latter purpose, are certainly very inadequate, considering that the valve of the colon does not oppose an entire barrier

to the admission of fluids to the small intestines. The bladder and pipe does not contain the quantity requisite for such a purpose; and if it did, the injecting force required could not be used. The large syringe is certainly an improvement on this method, but the same remark will apply to it; and it is very seldom that the piston is so adapted to the syringe as to answer well. The clyster in both ways is very apt to return, and especially so while the syringe may be withdrawn to introduce more. It would seem, this difficulty might be obviated by the use of a small forcing pump, with a cistern holding any given quantity, which, if necessary, could be resupplied during the operation of the pump, by the steady and continued employment of which, a column of fluid might be carried into the small intestines, and succeed when the common means fail. For convenience, the pump might be made portable, and so constructed as to be placed by the bed-side, with a flexible tube and pipe to reach the patient. This apparatus might, in addition, serve to convey any nutritive matter wished into the bowels in other cases. Its employment, however, in that I have stated, must be very early, I consider, if a mortal inflammation has begun. If it be asked, Should these means be resorted to on every little complaint of pain and constipation of the bowels, which is not to be considered of any nosological importance? I would answer, that if the case bear any resemblance to the one I have mentioned, the sooner a copious injection be used the better, or the patient may slip through our hands before we scarcely see danger. And as I mean henceforth to pursue the measures I have suggested, I have thought these remarks not unworthy the perusal of the fellow-members of my profession.

VII.

Medical Cases and Observations. By R. Sutleffe, Queen Street.

I. *On the unexpected Effects of the Unguentum Antimonii Tartarizati.*

I was hastily summoned to Mr. M., Paternoster Row, where I found a child, about three years old, writhing in tormenting agony, from the effects of a blister continued considerably too long on the skin. As far as it was possible to obtain an inspection of the parts, I was apprehensive that sphacelus had commenced; and, with a view of defeating the ill consequence of the extensive inflammation, advised tinct. opii, g^{tt} vi., to be repeated every half hour, if necessary, and with the happiest effect; for by the evening he was

tranquil, and continued in that state from the first dose of the anodyne; and the surface of an extensive ulceration assumed a healthy aspect; the healing cicatrization was carried on with great rapidity. As the ulceration was upon the side of the neck, and there appeared a rigidity, I was fearful of a curvature in some of the cervical vertebræ. I recommended leeches to the parts, which acted very copiously, apparently justifying the measure: and, in order to secure the advantage already obtained, I ordered the unguent. antim. tart. to be rubbed along the spine, with a view of diverting from an incipient vertebral disease, which might exist. During this process, much biliary matter was dislodged from the stomach with considerable violence; syncope supervened, and in forty-eight hours death, at a period when none of us were prepared for the event, apparently from an internal hæmorrhagy. Now this is a question which I am very anxious to ascertain — What share the absorbents had in this matter? I remember Dr. W. Saunders used to say, many years ago, that the tart. antim., rubbed over the epigastric region, would excite nausea and sickness; but with me it is quite an unique case for the rupture of a blood-vessel under such circumstances, if that really were the fact in this recited instance.

II. *On Bleeding in Apoplexy.*

Just now perusing the extract from Dr. Latham "On the Employment of Venesection in Cases of Sudden Seizures, commonly called Fits," I have been led to reflect on several cases of sanguineous apoplexy which have terminated variously. I concede, with all humility, that the opinions of Dr. Latham ought to be retained among us with almost oracular veneration, when I reflect on his unceasing vigilance, and the extensive opportunities he has enjoyed; and from the period of 1794, during which I have occasionally experienced the advantage of his superior judgment, I submit to the imperative and pleasing duty: yet, on the other hand, when I bear in mind that the life of a fellow-creature is above all price valuable, I cannot help regretting the manner in which he has expressed himself. In the instances in which a restricted bleeding by the lancet, or where means of lesser value have been resorted to and confided in, whilst there has existed a bounding pulse, I feel convinced, that had the depletory method been persisted in ad deliquium, I should have witnessed a favourable issue more frequently: for I have long conceived, that as paralysis is the result of a considerable augmentation of the calibre of the cerebral arteries, probably at the basis, so apoplexy is an actual

rupture of those identical vessels; and if the patient, during an apoplectic paroxysm, be blooded ad deliquium, he will have the fairest opportunity of recovery by the healing art, under a possibility of the restorative action of the absorbents. Whether the theory be correct or not, I am not prepared to contend for; but this I can affirm — that the last three cases, which I have had under my entire control, have been as unpromising as any, and yet have been restored by depletory measures, carried to an unusual extent.

III. *A Caution in the External Use of Hydrargyri Oxymurias.*

Miss L., of the Strand, æt. 5, was brought to me, affected with tinea capitis, communicated at school. Not having witnessed the efficacy, at that period, of the cupri sulphas, I advised a few grains of hydrargyri oxymurias, rubbed up with pomatum, and applied externally. Several days afterwards I was summoned to see this child, whom I found labouring under the most profuse ptyalism I ever witnessed. My alarm and regret were instantly unspeakable. I requested the important aid of Dr. Babington, my guide and instructor thirty-one years ago: he, with his accustomed urbanity, sympathized with and accompanied me. The onus of the case was considerably relieved by such a valuable advocate; but the most solemn sequel is, that after a few more days my little interesting patient expired.

While Professor Coleman was in the dissecting-room at Guy's, busily separating a muscle, and our conversation was upon animal heat, the subject of great medical controversy at that time, little Phipps, afterwards oculist to his late endeared Majesty, bringing in his hand a bullock's eye, at that instant said humorously, "Sutleffe, I would rather kill twenty patients, and know the cause of their death, than that I should recover one for which I could assign no medical reason." Now, though I do not gravely suppose that the Professor would plead for the full bearings of this sentiment, yet probably it is a happy circumstance, that those very splendid talents which he possesses are exerted in behalf rather of quadrupeds than bipeds.

IV. *On the Prevention of Plague.*

On reading the many elaborate works of our patient and indefatigable countrymen, who deserve all the honours our nation is capable of bestowing upon them, it has appeared to me surprising, that no mention is made of the prophylactic virtues of the acetic acid, or the smoke of tobacco, or of the odoriferous spices, or of the disagreeable vapour emanating

from animal fat in a fluid state, as in melting tallow. Now, as far as my experience goes, each of these agents has its decided advantage in checking or extinguishing pestiferous atmospheres; and during the awful plague in this city there was good reason for believing, that these agents possessed at least their local advantages. Possibly I may be too sanguine in attributing to them more virtue than they possessed; but I have yet to learn what has been the result of their actual application in times and places of danger.

V. *On the Effects of Hepatic Gas emanating from burning Coal.*

I was hastily summoned, a few months ago, to a neighbouring family, about bed-time, where I found a female domestic labouring under a shrill, laborious inspiration, and unable to articulate. I was informed that she had taken up, from a good kitchen fire, a panful of live coal; and that during the process of warming the bed a sudden suffocating blast seized her.

I was at a loss, for a few seconds, how to act. The subject was delicate and pale, with a clammy perspiration and a feeble pulse; insomuch that venesection was quite out of the question. Having antimony always with me, I got down some portion in a soluble state; judging that under the act of vomiting the lungs would partake of the benefit, to promote which, I stimulated the tonsils and uvula: then we endeavoured to relieve her by external cold; and lastly by binding up the ribs with a six yard roller, tolerably tight, to furnish the affected organs with an augmented tone. However, during this process she became capable of articulation; but so feebly, that on my inquiry whether she was better, she gently dropt her head, and whispered, "Hiss."

I am not aware that she derived the slightest advantage from any of the means we pursued; and I should suppose that her restoration, which was gradual, was purely effected by nature's efforts: so that, although I cannot pride myself on having accomplished a cure, I can unpresumptuously comfort myself, that I had not thrown an insuperable barrier to that desirable event. Indeed, to a humane mind, it is extremely difficult to know in these cases how to act. The anxiety of surrounding parties, dutifully solicitous of obtaining relief, and a consciousness that you are following up the medical laws which have attained their present acmè correctly, place you in possession, for the time being, of absolute power; and in order to assert the same, I have occasionally withdrawn my services, and left the discontented parties an oppor-

tunity to apply where they might feel more implicit confidence: for my valuable master, Dr. James Alderson, of Norwich, father to the amiable and justly celebrated Mrs. Opie, whose name will be endeared to me to the latest period of my existence, has long taught me, that it is beneath the dignity of a medical man, (who holds a rank in the interesting circle of domestic anxieties superior to King, Lords, and Commons, and powerfully claims respect accordingly,) ever to dispute physical subjects with his patients.

DEPARTMENT OF NATURAL HISTORY, &c.

Calendar of Fauna, Flora, and Pomona, kept at Hartfield, near Tunbridge Wells. By Dr. T. Forster. *During the Month of October,* 1821.

Oct. 1st.—The *Hieracium murorum* is now flowering in my garden for the second time: its first blowing usually takes place in May; and, like many of our early species, it flowers again in autumn from young stalks. An unknown species of *Centaurea,* with a whitish flower, is now in blow in my garden.

2d.—The *Colchicum autumnale* and the *Crocus sativus* in flower.

4th.—Another day of wind and rain has nearly destroyed the remaining flowers.

7th.—Fair weather has returned, and some plants again flower. *Papaver Rhœas* is still in blow, and we have a solitary instance or two of flowers on the Scarlet Lychnis. Dahlias and China Asters are in their full luxuriance.

9th.—*Inula Helenium* in flower in my garden.

10th.—A clear easterly wind, drying every thing, enabled me to collect the seeds of various plants to dry, which the wet season has threatened hitherto to destroy. The barometer kept falling all day, with a clear sky, and breezes, which rose soon after sunrise. Such a combination of phenomena is rare, and indicates a change of weather.

11th.—Both species of Swallow, *Hirundo rustica* and *H. urbica,* last seen.

17th.—That beautiful fungus, the *Agaricus muscarius,* is now abundantly flourishing, both in Stoneland Park and at Withyham; the pileus being bright crimson, with white spots. The *A. verucosus* is also still to be found, as well as *A. integer, A. fimetatarius, A. glutinosus, A. plicatilis, Boletus bovinus, Peziza coccinea,* and many others.

27th.—*Agaricus fascicularis* is abundantly springing up every where. I also noticed to-day what I take to be *A. congregatus* of Sowerby. *A. procerus* was also found on a bank near Grormbridge, on the hill in the way to Lankington Green. The leaves are turning very yellow, and every thing wears an autumnal appearance. Colds and rheumatic affections are now very prevalent, and I notice that several severe diseases have their paroxysms*.

28th.—Abundance of a large dun-coloured Agaric, I believe the *A. lactifluus*, is now growing on the higher grounds of Stoneland Park, among *A. muscarius*, and others.

31st.—*Agaricus congregatus*, *A. fascicularis*, *A. floccosus*, *A. integer*, and numerous others, now abound. Many plants remain in flower; and others still bear flowers that bloom in spring, as *Doronicum Pardalianches*, *Symphytum tuberosum*, &c. Red Poppies, as well as the *P. somniferum*, still blow sparingly, as do Canterbury Bells, Garden Crepis, the *Tropæolum majus*, and the Scarlet Lychnis. The different Asters are in full blow, but have been much damaged by the late wind and rain. *Ecchium violacium* is now in flower in my garden. Sunflowers have disappeared, and their plants are bearing seed.

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* *On Lunar Influence in Diseases.*—The above observation respecting the paroxysms of diseases seems to require some further explanation, as it alludes to a doctrine I have long maintained, that there is a periodical influence exercised on the human constitution twice in about twenty-nine days; and that this influence, consisting of an augmented irritability of the nervous system, takes place about the full and change of the moon. I am aware that this doctrine is far from being new: on the contrary, it was held by Sydenham, Darwin, and Mead, and was well known to the ancients: but I contend, that the right manner of observing and noting down this phenomenon has been overlooked by modern Physicians. Let any medical man of extensive practice make an artificial division of the lunar month (in his journal) into four weeks, so disposed that the four changes of the moon shall occur in the *middle* of each week respectively; then he will find the periods of irritability to happen in those weeks wherein the new and full moon occur. During these weeks there will be found infinitely more parturitions; the paroxysms of chronic and other severe complaints will oftener happen; and headachs, faintings, epileptic fits, and other nervous and phrenic affections, will be most common. Many Accoucheurs in the country have mentioned to me the frequency of labours about the new and full moon; and I could detail numerous instances of affections of the brain taking place regularly as the moon approached her conjunction and opposition. I must beg leave to refer to my paper *On Atmospheric Diseases*. 8vo. Underwood, London, 1817.

PART II.

ANALYTICAL REVIEW.

I.

A Treatise on the Anatomy and Physiology of the Mucous Membranes; with illustrative Pathological Observations. From the French of Xavier Bichat. By Joseph Houlton, Member of the Royal College of Surgeons in London.

Pathology has recently assumed a much more definite character than it possessed before the time of Bichat, and other investigators of vital phenomena, who, untrammelled by the suppositious and *terra incognita* philosophy formerly prevalent in the schools of medicine, have searched for truth in the anatomical peculiarities of the several organs and parts that present themselves before a minute and careful inspection of living and dead bodies.

We have frequently taken occasion to say, that there is at present something to be apprehended on the other side; and while our predecessors were too metaphysical and generalizing, we may be rather too *anatomical* and piece-meal in our medical notions and pathologic inferences. Thus mucous membranes, serous surfaces, and other textures, are talked of as obnoxious to separate affections, sometimes without a due recollection of the complicated and combined structure of the human body, and without a proper recognition of the principle, that a morbid condition of one part soon extends itself to contiguous tissue.

There is another source of mischief connected with anatomical inferences, in medicine, carried out into an ultra extent, viz. the too great credit which it encourages to be given to the information of morbid anatomy. We often expect to see invisible things, — we are apt to suppose that pain *must* denote some condition of one or other of the tissues, that shall be traceable by the dissection knife, — we contemn the idea of functional without structural derangement; — and are thus often induced to forego leading facts and commanding views in physiological deduction, and therapeutic data, by attending to the small talk babble of texture and tissue. We gain in ingenuity, and lose in genius, — we forget pervading principles, while seeking for particular

facts; — and, were we not afraid of the nationality the following mode of putting the thing might appear to imply, we would say, that our medicine becomes, by the circumstances alluded to, rather too little Anglical, and too greatly Gallic.

These remarks are merely meant as applicable to extremes; and if we are now, or at any time have been, suspected of unfriendly feelings towards minute anatomy, and post obit investigation, the tenour and tendency of our strictures have been widely misconceived. As this Number of the Repository is a valedictory one in respect of its present editorship, it has been thought not improper to introduce the following analysis, with a last repetition of what has frequently been advanced on the head of modern medicine.

Mr. Houlton has here presented us with a translation of that portion of the celebrated Bichat's works which relates to mucous membranes. "Where all is excellent," he says, speaking of these works, "it is difficult to make a satisfactory selection; yet this portion of the author's productions merits the particular attention of medical Students and Practitioners in general, as it leads to the knowledge of the structure and economy of that part of the animal organization, which more than any other is subject to morbid affections."

Sect. I. *Of the Situation and Number of Mucous Membranes.*

They are properly but two.

"2. The first of these two surfaces, entering by the mouth, nose, and anterior surface of the eye, (1) lines the first and second of these cavities: from the first it extends into the excretory ducts of the parotid and submaxillary glands; from the other it is continued into all the sinuses, it forms the tunica conjunctiva, descends by the puncta lacrymalia through the canal and lacrymal sac to the nose. (2) It descends into the pharynx, and there furnishes the inner surface of the Eustachian tube, and thence it penetrates and lines the internal ear. (3) It sinks into the trachea, and spreads itself over all the air passages. (4) It enters the œsophagus and stomach. (5) It extends into the duodenum, where it furnishes two branches, one destined to the ductus communis choledochus, to the numerous rami of the hepatic duct, to the cystic duct and gall bladder; the other to the pancreatic duct and its various ramifications. (6) It is continued into the small and large intestines; and finally terminates at the anus, where it is identified with the skin.

"3. The second general mucous membrane enters, in men, by the urethra; and thence spreads from one part through the bladder, ureters, pelves, calices, papillæ, and uriniferous tubes; from the other it sinks into the excretory ducts of the prostate gland, into the ejaculatory ducts, the vesiculæ seminales, the vasa deferentia, and the

infinitely convoluted branches from which they arise. In women, this membrane enters by the vulva; and from one part penetrates the urethra, and is distributed, as in men, through the urinary organs; from the other part it extends into the vagina, which it lines, as it also does the uterus and the Fallopian tubes; and through the apertures at the extremities of these ducts it comes in contact with the peritonæum. This is the only example in the economy, of a communication between the mucous and serous surfaces."

In diseases, one of these membranes will be occasionally affected throughout its whole extent, while the other is not at all implicated. An epidemic catarrh, for example, will affect the mouth, nose, eye, alimentary canal, and bronchi, without the urinary and genital organs partaking of the disorder; and, again, the sympathies which take place between two points of the membranes will be confined to the individual membrane irritated. "Thus a stone in the bladder causes a pain at the end of the glans, worms in the intestines produce an itching at the nose."

Of the Exterior Organization of Mucous Membranes.

One surface is adherent to adjacent organs, and the other free, and furnished with villosities. The attachment is mostly to the muscles, the movements of which regulate the secretions of the free surface. There is an intermediate membrane between the mucous and muscular coats, to which the membrane itself owes its power of resisting substances which distend it. The folds of the free surface are two; one inherent in their structure, the other incidental, and dependent upon contraction: in this last case there is but a trifling diminution of surface in the membrane, since it folds itself within, and does not contract with the contracting organ. This remark applies to the ordinary state of functions only, and not to those enormous dilatations which are frequently seen in the stomach and bladder, more rarely in the intestines.

Of their Interior Organization.

Mucous membranes have a considerable analogy in structure with the skin. They are formed, unlike other membranes, by several thin fibrous layers. They have an epidermis, which is most distinguishable wherever the membranes arise from the skin; it may become callous by pressure; when removed, it is quickly reproduced. "To its presence over the mucous membranes, we must attribute the ability they have of being exposed to the air, and even to the contact of foreign bodies, without excoriating or inflaming, as is seen in cases of artificial anus, prolapsus ani, &c., while serous and fibrous membranes never suffer such exposure with

impunity. The corpus mucosum, whatever it may be, does not exist in mucous membranes, as it does in the skin, since they do not participate in the colour of the integuments. The *corps papillaire* is present here as well as in the skin, which gives the membranes their sensibility. The bases of the villi are nervous, and they "perform the same functions on the mucous membrane as the papillæ do on the cutaneous organ." Like the skin, the mucous membranes are furnished with a chorion, which is formed of condensed cellular strata.

"Maceration develops this texture in a very sensible manner. There is nevertheless this difference, that in dropsy the cutaneous chorion rises and resolves itself into distinct cellules, that become filled with water, whilst no such change takes place in the mucous chorion under similar circumstances. Does this difference in the morbid state suppose a dissimilarity of structure? Certainly not; for the synovial membrane is evidently of the same nature as the serous membranes; and nevertheless it does not participate in the hydropic diathesis which often affects them universally. It would be curious to expose mucous membranes to the action of tan, to see if they would present the same phenomena as the skin."

Of their Glands.

These are situated under the chorion; their orifices, although imperceptible, constantly discharge a mucilaginous fluid, which lubricates their free surface. "There is, therefore, this great difference between mucous and serous membranes; that the fluid which lubricates the former is furnished by secretion, whilst that which moistens the latter is produced by exhalation." The fluid that these glands secrete is more abundant in cavities where substances remain for some time, as in the bladder and the rectum, than in those organs through which they merely pass, as the ureters and excretory ducts. When extraneous bodies are introduced into passages, more than the natural quantity of mucus is poured out in order to obviate the injury that might otherwise be consequent upon their introduction. This effect is brought about by the exercise of a law modifying glandular sensibility, and which determines that every irritation at the extremities of excretory ducts excites the corresponding glands, notwithstanding the intervention of a membrane. The mucous secretions do not return into the circulation, but are thrown out externally; indeed the same may be said of almost all fluids separated from the blood by secretion; reception again into the circulating blood seems the destiny principally if not only of those fluids that are separated in the way of exhalation.

"As those of the serous cavities, of the articulations, of the medul-

lary organ, &c.; all the fluids are thus excremental or recremental, and there is no recremental excrement, as the common division points out*.

" 44. What is certain, at least, is, (1) that I have never been able to effect the absorption of bile or saliva by the lymphatics. When I have injected them into the cellular tissue of an animal, they have always produced inflammation and suppuration. (2) We know that the urine, when infiltrated, does not become absorbed, and that it strikes with death every part that it touches; whilst the infiltrations of lymph, or of blood, are readily absorbed. (3) There is an essential difference between the blood and the secreted fluids as concerns their decomposition, whilst exhaled fluids and serum, &c. are in that respect very similar."

Of their Vascular System.

The mucous membranes are furnished with a great number of vessels; their vascularity is not, however, every where uniform, being greater in the stomach, small intestines, and vagina, and less in the bladder, large intestines, and frontal sinuses.

" It is produced by a web of very numerous vessels, whose supplying branches, after having passed through the chorion, finish on its surface by an infinite division, embracing the corps papillaire, and is covered only by the epidermis.

" 46. It is the superficial position of these vessels that frequently exposes them to hæmorrhages, as we remark principally in the nose, and as is seen in hæmoptysis, hæmatemæsis, hæmaturia, in certain dysenteries, where the blood escapes from the parietes of the intestines, in uterine hæmorrhages, &c.; so that those spontaneous hæmorrhages, which are independent of any external violence applied to the open vessels, appear to be special affections of the mucous membranes; they are seldom observed but in these organs, and they form at least one of the grand characteristics which distinguishes them from all the other membranes."

Bichat doubts the fact of more blood being supplied to the mucous membranes at one time than at another, according to their varied circumstances; he does not give credit to the vascular connexion of the spleen and the stomach, as suggested and maintained by some physiologists; and he believes that the rapidity of the circulation is the only differ-

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* " The bile in the gall bladder, the urine in the bladder, and the semen in the vesiculæ seminales, are certainly absorbed; but it is not the fluid itself that re-enters the circulation, but only its finest parts, some of its principles that we are not well acquainted with, probably its aqueous or lymphatic portion. This does not resemble the absorption in the pleura and other analogous membranes, in which the fluid rejoins the blood in the same state as it left it."

ence in the vascular condition of the membranes that is occasioned by varied states and demands of the part.

" It is, in fact, possible, that though the quantity of blood be always nearly the same, the rapidity of the circulation may increase; and consequently, in a given time, more of this fluid will be sent there during the plenitude of the viscera. This appears to be necessary for the secretion of the mucous fluids, which are then more abundant."

Of the Variations in the Organization of Mucous Membranes in different Regions.

One variation consists in this, that the origin of the membrane has the corps papillaire slightly marked, and offering no villous character, the epidermis thick, the chorion evident, and the mucous glands numerous and large.

Secondly, there is a striking difference between that portion of mucous membrane which lines the sinuses, and that of other parts. " Here it has more redness and an extreme tenuity; the three layers cannot be distinguished; and although there is a considerable secretion of mucous fluids, there are no perceptible mucous glands. Indeed the structure is in this case the same as that portion of the membrane which is spread over the surface of the internal ear. This last is not a sort of periosteum, as anatomists have usually considered it; " but a mucous layer, like that of the sinuses," for it is seen to be a continuation of the pituitary membrane, by the medium of the Eustachian tube, it is habitually moist with a mucous fluid, no fibrous structure can be distinguished in it, and it is unlike periosteum, spongy and yielding.

" 56. I pass over (says our author) the other variations of structure in mucous membranes in their different regions; in all they have real differences. I observe only, (1) That these variations distinguish them from serous membranes, whose aspect is everywhere the same, as may be seen by comparing the pericardium with the peritoneum, &c. (2) The sensibility of mucous membranes varies in a very peculiar manner in their different portions; thus an emetic irritates the stomach, but not the conjunctiva; the pituitary membrane perceives only odours; the mucous surface of the tongue flavours, &c. On the contrary, the contact of all kinds of bodies with the naked serous membranes produces phenomena exactly analogous."

Of their Vital Powers.

These membranes are remarkably distinguished from others by their sensibility, and they have in respect of this property in particular, a very curious connexion with the skin, which gives rise to several very important phenomena.

" 58. (1) When the temperature of the surrounding air deadens the sensibility of the cutaneous organ, by contracting its tissue, the

sensibility of the mucous surface receives a remarkable increase of energy. Observe why in winter, and in cold climates, where the functions of the skin are singularly limited, all those of the mucous membranes are in proportion augmented; thence arises a more evident pulmonary exhalation, the internal secretions are more abundant, digestion is more active and more ready to operate, consequently the appetite is the more easily excited. (2) When, on the contrary, the heat of the climate, or of the season, &c. relaxes and opens the cutaneous surface, we should say, that the mucous surface is in proportion constricted: during summer, in the south, &c. there is a diminution in the internal secretions, the urine for instance; a tardiness in the digestive phenomena by a default in the actions of the stomach and intestines, and the appetite is slow in returning. (3) The sudden suppression of the functions of the cutaneous organ often determines a morbid increase of action in those of the mucous membrane. Cold air, which checks the perspiration, frequently produces colds and catarrhs, affections which are marked by the sensibility and increased action of the mucous glands. (4) In various affections of the mucous membranes, baths, which relax and determine to the skin, produce beneficial effects.

" 59. The foregoing considerations evidently establish the influence, which the vital powers of the skin have over those of the mucous membranes. Others, not less important, demonstrate the reciprocal dependence in which the skin is found with the same membranes, as respects their vital powers. (1) During digestion, when the mucous fluids are poured out in abundance into the stomach and intestines, when, consequently, the mucous membranes of the alimentary canal are in high action, the fluid of insensible perspiration is evidently diminished, according to the observation of Santorius: it is very small in quantity three hours after a meal, so that the action of the cutaneous organ is visibly less energetic. (2) During sleep, when all the internal functions become more marked and are in full action, at which time the sensibility of the mucous membranes is consequently highly excited, the skin appears to be seized by a manifest debility—a debility, which is evinced by the cold which it experiences when the animal reposes at night uncovered, and by its want of susceptibility of various impressions."

The sensibility of the membranes in question is greatly reduced by habit. " The presence of the catheter which is passed up the urethra for the first time, is cruel the first day, painful the second, inconvenient the third, scarcely felt the fourth." Habit has the further power of changing the sensation produced by stimuli into painful from pleasurable, and vice versâ — as in the instance of snuff-taking. Age materially alters the degree and kind of sensibility in these membranes. " All is susceptibility in the infant; in old age all is dull." Witness the active secretions of the alimentary and other surfaces in early life, compared with that of the same

parts in advanced age. It is a curious circumstance that at the origin of the mucous surfaces susceptibility is marked, whilst in the interior it is at farthest obscure. To habit may this, perhaps, also be ascribed, since the interior of organs has bodies always in contact with it, while the application ceases and is renewed at the commencement of the tissue.

" 65. It is very difficult to point out with precision the character of the tonic powers of mucous membranes, because, being almost in every part united to a muscular layer, we can hardly distinguish what belongs to the tonicity of the one from what depends upon the irritability of the other; or otherwise, if the mucous membranes be isolated, as in the nostrils, yet their attachment renders the phenomena of their tonic powers very obscure. Nevertheless, the action of the excretory ducts on their respective fluids, that of the gall bladder, and of the vesiculæ seminales which are destitute of muscular attachments, and the spasmodic contraction of the urethra, which sometimes takes place when the sound is introduced, leave no doubt of the energy of this tonic power, doubtless similar in its various modifications to that which is observed in the cutaneous organ."

Of their Sympathy.

The sympathies of mucous membranes are referrible to three heads — in the first place, an irritation on one part occasions a sensation in a distant part — such as worms in the rectum giving rise to an itching of the nose. Secondly, the consequent irritation is in a different structure, as is instanced in a stone of the bladder occasioning a retraction of the testicle. In the third place, glandular action is augmented, as before pointed out, by the irritation of the extremities of excretory ducts.

Of their Functions.

Have the mucous membranes any influence over the redness of the blood? Do they exhale? Do they absorb?

" Through a wound in the abdomen (says Bichat) I drew out a portion of intestine, which I tied at one point. I then returned it, keeping back a part, which I punctured, and introduced into it sufficient atmospheric air to distend all that portion of the bowel between the ligature and the orifice. I then confined the air by another ligature, and reduced the whole. At the end of an hour the animal was opened. I compared the blood of the mesenteric veins, which arise from that portion of intestine distended by air, with the blood of the other mesenteric veins arising from the remainder of the canal: no difference of colour could be observed: the internal surface of the inflated intestine did not exhibit a brighter red."

From these and other experiments and observations, our author infers that the colouring of the blood through mucous

membranes, by exposure to air, is far from being an ascertained fact.

That mucous surfaces exhale, is pretty certain from analogy; " for it appears well proved, that the perspiration is not a transudation by the inorganic pores of the cutaneous surface, but a true transmission by vessels of a *particular* nature, and continuous with the arterial system:" but it is in general very difficult to distinguish with precision what belongs to the exhalant system, from what is furnished by the system of mucous glands which are every where subjacent to them.

" 79. That mucous membranes absorb, is evidently proved by the absorption of the chyle upon the intestinal surfaces, of venereal virus upon the glans and urethra, of variolous poison which is sometimes rubbed upon the gums, of the serous portions of the bile, of the urine, and of the semen, when they remain in their respective reservoirs. When, from paralysis of the fleshy fibres which terminate the rectum, the fæces accumulate at the extremity of that intestine, (a very common case in aged persons, and of which Desault has cited many instances,) these accumulations frequently become hard, probably from the absorption of their juices, which are obstructed there. We have many cases in which the urine has been almost entirely absorbed by the mucous surface of the bladder, when there has been absolute obstruction in the urethra. Whatever may be the mode of this absorption, it appears that it is not performed in a constant, uninterrupted manner, like that of the serous membranes, in which the exhalant and absorbent systems are in a continual alternate action; but that it occurs only under certain circumstances, of which, perhaps, the greatest part are not in the natural order of the functions. Finally, we have yet fewer data respecting the mode of mucous absorption than on that of cutaneous absorption: we confess it is very little understood, and many even question its existence."

The tract before us terminates with the following queries, which are interesting both to the physiological inquirer and medical Practitioner:—

" 81. Why do mucous membranes seldom contract adhesions from inflammation, since that occurs so frequently in serous surfaces under the same circumstances? Why does not the internal surface of the inflamed stomach, intestines, or bladder, adhere in its various portions, like the pleura, tunica vaginalis, testis, &c.

" 82. Why, in inflammations of mucous membranes, is there an abundant flow of that fluid which habitually moistens them, and which constitutes the different kinds of catarrhs, whilst the source of the fluid that exhales from serous membranes is generally dried up in analogous cases?

" 83. Why do polypi, a kind of affection peculiar to mucous membranes, seldom arise but at the origins of these membranes in the

vicinity of the skin, as in the nose, pharynx, vagina, &c., and not in their more internal portions, as in the stomach, intestines, &c.? Does this arise from the peculiarity of the texture that I have shown mucous membranes to have, in the vicinity of those places where they arise from the skin, or must we attribute this fact to the more numerous causes of irritation which act upon the origins of these cavities?

"84. Are not aphthæ an isolated inflammatory affection of the glands of the mucous membranes, whilst catarrhs are characterized by a general inflammation of all the parts of these membranes?"

We have thus given a pretty full analysis of Bichat's essay, from a feeling that, although the matter which it contains is familiar to many of our readers, (and, indeed, is rudimental,) there is a great portion of these who have hitherto had no opportunity of examining the works of the John Hunter of France.

II.

A Brief View of the Yellow Fever, as it appeared in Andalusia during the Epidemic of 1820: *together with the Mode of Treatment adopted, and an Account of the Appearances on Dissection. To which is prefixed, a Short Topographical Sketch of the Country.* By Thomas O'Halloran, Esq.

The attentive perusal of this tract has served to confirm those principles which we endeavoured to propound in our recent review of Dr. Hancock's valuable volume, on the subject of epidemic, endemic, pestilential, and contagious diseases. These principles, we scarcely need repeat, are, that authors, in their discussions respecting the contagious or non-contagious qualities of distempers, reason for the most part too much in the abstract, and suppose specific distinctions that do not in reality exist. What is yellow fever? Is it not a highly deranged state of all the animal system, manifesting itself especially by disordered actions in the biliary organs; the kind and degree of disorder induced being referrible to the circumstances of the place in which disease breaks out?—and does it not seem evident, from all the facts of the case, that were it possible for three individuals to receive at one moment exactly the same dose of the virus, one being permitted to remain in the situation where he became infected, a second immediately transported into the metropolis of England, and a third taken as instantaneously to the shores of the Levant, the first of these patients would have a complaint which might be legitimately entitled yellow fever, the second would be down with typhus probably, and

the distemper of the third would be converted into plague. Now, if this view of the thing be correct, and every fact that we witness, and every tract that we read appears to us to strengthen the hypothesis, we again affirm that both the contagionists and anti-contagionists are at fault in their assumptions and deductions.

The author of the pamphlet before us states, "that the yellow fever cannot be communicated by actual contact, or conveyed through any positive medium; that it cannot propagate in *atmospheres not epidemical;* and, that if it were possible in one hour to remove an hospital filled with patients labouring under the worst forms of this disease from *Seville to London*, not a single individual of these countries would be affected by the importation." We would propose the following modification of this proposition:—The yellow fever, like plague and typhus, is capable of being imparted from one individual to another, the epidemic circumstances of the place favouring this communication; and, even when these last are not present and operative, a certain kind and measure of sickness is capable of being engendered by contact or communication; but in this last case the distemper would not wear the features of the original producing complaint—it would be deprived of its specific peculiarity. Indeed, the following sentences from the author himself, are in entire accord with our own sentiments on the subject, although they are, in some sort, inconsistent with his previous assumptions, that the yellow fever cannot be communicated by actual contact.

"It is a fact, ascertained beyond dispute, that there are certain climates in which venomous reptiles cannot live. Ireland, for instance, is supposed, and with good reason, to be peculiarly blessed in this respect; and though it may be as impossible to account for the one phenomenon as the other, I am perfectly satisfied that the yellow fever could no more exist in this country than those reptiles could, to which I have alluded in illustration of the fact.

"If the imaginary case, relative to the importation of persons labouring under yellow fever, which I have put for the sake of argument, were realized, it is, to be sure, impossible to say how far the *sick* might be affected by the change of climate and situation; but I believe, that even if those who should happen to be in attendance upon them should, from *fear*, or any other predisposing cause, be attacked by fever, *it would be strictly the fever common to these countries*, and not marked by any of the characteristics which distinguish the febrile diseases of less favoured climes."

Having made these preliminary remarks, we now proceed to a short analytical account of Mr. O'Halloran's interesting little volume.

The first chapter contains a topographical sketch of Anda-

lusia; situation, soil, and climate; manners and customs of its inhabitants; in the course of which the writer proves himself by no means ungifted with descriptive powers. Of Seville he gives a more particular account than of the other Andalusian provinces. We cannot be expected to follow the author closely through this portion of his labours; but we think it of importance to extract the concluding paragraph of the section under notice:—

"The Levant winds are considered the most unhealthy—they are certainly the most unpleasant; producing great languor and lassitude, even in persons of naturally strong constitutions; and, if they continue to blow for any length of time, are thought to predispose to, and even produce, fevers and other disorders. It has, moreover, been remarked by the inhabitants of the seaport towns in the south of Spain, that the yellow fever, or some other epidemic, has of late years almost invariably prevailed, when excessive heat, produced by southerly or south-west breezes, succeeded an unusual prevalence of the Sirocco winds."

In regard to his "Observations on Contagion," we have just intimated how much and in what way we agree with him; but we shall be excused for further seizing hold of facts and allegations which seem forcibly to favour our own notions:—

"I would beg leave to observe, that fever is never entirely absent from any country. A portion of it is to be found in all districts, and in the most healthy seasons, sufficient to form a *nucleus* adequate to all the purposes of contagious propagation; and how can it happen, that *the moment the epidemic* ceases, and a more healthy season approaches, fever seldom or never rages from house to house, or from individual to individual? Having fastened upon one object, it runs its course, and most commonly departs without injury to the neighbourhood, or even to the other branches of the family in which it appears."

Mr. O'H. subsequently admits, "that although propagation from person to person is not evident, there are certainly grounds for the supposition, that in the ill-ventilated apartments of the sick, a noxious material emanates from the subject, which alters the salubrious quality of the atmosphere to such a degree, as sometimes to render it unfit for supporting the necessary actions conducive to health, and thereby indirectly to produce fever." Here we have the infectious atmosphere of the anticontagionist, which Dr. Adams and others talk of, in reference to the communicability of typhus; but we believe, in this case, that the oppugner of contagion carries his assumptions into too large an extent: and even in the case of yellow fever, though this last may be less virulent than typhus, and much less so than plague,

we do verily believe there is a communicating something, which *directly* impinges the body of a previously uninfected person; and that in an epidemic atmosphere many are down with the disease, who would have withstood the malign influence of the *malaria* operating *per se*.

Mr. O'H. adduces several instances, which, he thinks, amount to proof that the disease in question is not "personally contagious," and that it is not capable of propagation by contact, clothes, or near approach. The cited examples, however, appear to us merely to establish the fact that there is, as above intimated, certainly a less specific and virulent character about this distemper, than there is in small-pox, (inasmuch as variola does not absolutely require an epidemic atmosphere for its propagation,) and apparently even less than in the case of plague and typhus, which last our present author, with most others, seems desirous of characterizing as contagious maladies, in contradistinction to the yellow fever. It is in this we think them erroneous.

We all know that it is a disputed point, both by the Faculty and the public, whether the genuine yellow fever ever infects an individual a second time. On this head the present writer expresses himself in the following manner:—

"It is believed, and, in my opinion, with some reason, that persons who have once had the yellow fever are not susceptible of second attacks. This, I believe, is generally, though not always the case; for I have seen many, and treated some, who declared that they had had the disease during the rage of former epidemics, and who yet sickened in the year 1820, and suffered from a malady bearing the diagnostic marks of the prevailing epidemic. When I served in the West Indies, I myself contracted a disease acknowledged to have been the yellow fever, in its worst form: and it is, perhaps, to this circumstance that I should attribute the mildness of two or three attacks of illness that I experienced afterwards at Xerez; and which, as I have observed, though not amounting to yellow fever, were yet sufficient to force me, for a time, to relinquish my professional avocations."

After despatching the subject of contagion, Mr. O'H. proceeds to describe the symptoms of yellow fever, which he notices under two heads, viz. those which manifested themselves in the sanguine temperament, and those which were displayed in the nervous or serous temperament. It is in the last case that the disorder is most severe and destructive. In the first, we are told that "the disease, although extremely alarming, from the violence of symptoms which succeed the period of invasion, is not very fatal, under proper management; but if neglected, or left to nature, it runs a rapid and destructive course. This form of the

malady is stated to be "incontestably of the inflammatory kind," and requires free and full depletion.

"It will appear, by reference to the annexed cases, that those terminated most favourably in which blood-letting was used to the greatest extent; but it is incumbent on me to state, that many cases ended fatally, even when the lancet had every possible advantage. The Spanish Physicians were no advocates for the practice in any case. My treatment of the disease was not very successful — theirs still less so. I lost one patient out of every five and a half; they, one out of every two and a half; so that, in fact, neither of us had much to boast of. I have observed (and it is important I should mention it), that in all cases in which the employment of mercury was followed by *salivation*, the patients recovered. This was the result, without a single exception, throughout the whole period of the epidemic; and so perfectly am I assured of the fact, that I would set down the recovery of any patient as certain, who should be once affected to salivation. I insist upon the state of ptyalism, because I have seen many instances in which the mouth and gums became sore and ulcerated without any salivary discharge, and in which the patients did not recover."

It should be recollected, however, that Mr. O'H. was much restricted in his therapeutic measures by the want of proper pharmaceutical preparations — Spain being, in respect of chemistry and pharmacy, "at a very low ebb."

Of the following two cases and dissections, the first was under the treatment of the Spanish Physicians; the second under the exclusive management of the author:—

"Case IX. Genaro Vicario, a young man of robust habit and considerable muscular power, was admitted into the hospital at Xerez on the 11th November, 1820, labouring under epidemic fever. The disease at first appeared in a mild form, but on the third day the symptoms became serious. *Hiccup* and *dyspnœa* set in on the 6th, and he died on the 9th. I examined the body a few hours after death, in presence of the attending Physician of the hospital.

"*Dissection.— Thorax.* The *lungs* collapsed. The right pale; its convex surface adhering, in several parts, to the *pleura*. The left *lung* inflamed. The *heart* was preternaturally enlarged and collapsed. The left *auricle* and *ventricle* full of blood, resembling tar in colour. The right *auricle* and *ventricle* empty. The *pericardium* contained about four ounces of fluid of yellow colour. The *aorta*, before its bifurcation to form the iliac arteries, was extremely small, destitute of blood, and of a yellow tinge internally.

"*Abdomen.* — The *liver* pale, compacted, and destitute of blood. The *gall-bladder* considerably distended with bile, not unlike *molasses*. The *spleen* enlarged, and distended with black blood. The *stomach* greatly distended; pale externally; internally lined with slimy mucus, of a greenish colour, and so gelatinous in its nature as to form strings and bubbles when detached from the villous coat. The

internal surface of the stomach was not inflamed: the villous coat was natural. This organ contained about a pint of fluid, which appeared to consist of blood and bile. On a superficial examination it resembled blood in a state of putrefaction; but on straining it, from an elevated position, it manifested the colour and tenacity of the contents of the *gall-bladder*. The *omentum* was brown; no marks of inflammation. The small intestines were all diseased; the villous coat black and lined with slime resembling that which adhered to the internal surface of the stomach. The *cæcum* was gangrened to the size of half a crown. The *colon* and *rectum* contracted. The urinary bladder diminished in size. The *pelves* of the kidneys were distended with urine. The cellular membrane, about the breast and abdomen, was yellow in some parts; brown in others."

"Case X. Antonio Moratelli, aged nineteen, was taken suddenly ill on the morning of the 6th November, and I visited him in two hours from the time of attack.

"Forehead painful; throbbing at the temples. Face flushed; the eyes dull; lips dry; thirst urgent. The tongue clean; pulse 78, hard and wiry. Skin moderately hot, dry, and rough to the touch. The stomach and abdomen painful on pressure. Distressing pains of the inferior extremities. Bowels constipated. No chilliness.

"Venesection to two pounds and a half. A purge of calomel and jalap.

"Evening. The headach, which had been relieved by the bleeding, returned; but in a mitigated degree. The extremities free from pain. The tongue white; thirst urgent; lips parched; the eyes glistening, watery, and surcharged. Cheeks flushed. Partial sweats. Bowels still constipated. Pulse 77. The abdomen tense, distended, and slightly pained on pressure. Respiration hurried.

"Purgative enemata. A cathartic mixture of infusion of senna with salts.

"Nov. 7.—The enemata were returned without effect. Patient became chilly about nine o'clock last evening, and shook a little. The purgative mixture was retained, and produced several copious stools. Head slightly affected. Eyes more cheerful, and of a pearly whiteness. The cheeks pale; tongue white as paper. Pulse 70, and regular. Bowels distended. Urine scanty.

"Calomel, nitre, and opium every two hours; fomentations to the lower extremities, and frictions with camphorated oil.

"Evening.—Skin below the natural heat. Lassitude and languor. Vomited copiously at one o'clock. A copious evacuation downwards at the same time; colour black.

"Calomel and opium.

"Nov. 8.—Bowels well evacuated during the night. Gums swollen, but no salivation. The tongue white, moist, and covered with a clammy white froth. Thirst continues. The cheeks dark red. Head free. Pulse 70. Skin hot.

"Camphor, calomel, and opium in large doses.

"Twelve o'clock, A.M.—Vomiting troublesome since morning; the matter ejected brown and slimy. Heat of surface below natural.

Feet cold. Skin flabby. Pulse 80, and feeble. The abdomen not painful on pressure. The countenance distressed and dull.

" A blister to the epigastric region, and another to the nape of the neck. Medicines repeated; some wine; the body to be rubbed with camphorated oil.

" Evening.—Not better. Blisters not acting.

" Pediluvium. Frictions to be repeated.

" Nov. 9.—Passed a bad night. Low delirium. Has had three black, watery evacuations. The countenance grim. Head free. An increase of pain in the lower extremities. Legs cold. Abdomen painful on pressure. Respiration hurried. Pulse 70, and feeble. The temporal artery not to be felt.

" While I am taking this report, he grows more restless. Pulse scarcely perceptible at the wrist. Complains of pain at the stomach. Black vomiting.

" Medicines repeated. A purgative draught of tincture of myrrh and aloes. Frictions to be continued. Blisters to the calves of the legs. Wine in small quantities.

" Evening.—Pulse not perceptible. Has vomited frequently since morning. Extremities quite cold. One inky stool at three o'clock.

" Nov. 10.—The pulse perceptible, but weak. Delirium. The coldness of the extremities extends upwards. Acutely sensible of pain from the blisters. Petechiæ appear all over the body.

" Wine ad libitum.

" Nov. 11.—Pulse not perceptible. Skin yellow. Extremities cold. Colliquative sweats.

" Died at twelve, A.M.

Dissection.—Thorax. Lungs collapsed. *Pericardium* contained little or no fluid. The *heart* yellow: some bloody serum in the left auricle and ventricle. Right auricle and ventricle empty. *Abdomen.* The *diaphragm* yellow. The *liver* of the natural size, but hard, and containing a large quantity of grumous blood. The *gall-bladder* large, and distended with black bile. The *stomach* highly inflamed, and covered with a glutinous slime near the cardiac orifice. The *duodenum* brown externally; darker internally, and containing a quantity of fluid resembling the black vomit. The *jejunum* partially gangrened, and exhibiting *introsusceptio* in three points;—two within five inches of each other; the third, distant about one foot from them, and the superior portion of the intestine overlapping the inferior in all. The *jejunum* likewise contained some fæces, mingled with matter resembling the black vomit: it was considerably distended with air, and the villous coat was brown and jelly-like. The *ilium* gangrened in parts, and its villous coat resembling the jejunum. The *cæcum* was brown externally, and contained fæces of some consistency. The *colon* distended with air, and approaching to a gangrenous state in many parts. The *omentum* and *mesentery* yellow. *Kidneys* and *pancreas* natural. *Aorta* empty, and of a yellow tinge internally. *Venæ cavæ* distended with air; little blood. The cellular membrane, all over the body, yellow."

The disorder is incalculably more formidable and dangerous when it attacks patients of a nervous and serous temperament, or rather when the diseased actions are manifested in these temperaments. The patients seem to be affected with collapse, from which they never recover; and the difficulty of the management would appear partly to be constituted by the circumstance, that active measures are at once required, and scarcely admissible, on account of the extreme prostration of the vital powers. "The patient," says our author, "in this form of the disease, at one moment in a state of perfect health, is at the very next struck by some power that at once deprives him of all his energies, transmutes him to a living corpse, and marks him for the grave. He resembles a blighted plant, from which all the characteristics of health and vigour are gone, while the stem for a time retains just a sufficient degree of freshness to assure us of the nature of the injury."

As in the case of the first form which Mr. O'Halloran describes of the disease, so in regard to this, we cannot, perhaps, more efficiently represent the practice both of himself and the Spanish Physicians, than transcribing a case and dissection from each.

"Case I. Quan Moratele, aged thirteen, was taken ill on the morning of the 7th of November, 1820. I attended a patient where this boy resided; and, being in the house, I had the opportunity of examining his condition at the instant the chill set in. The eye dull, heavy, and somewhat inflamed. The skin cool and moist. The tongue clean. Slight thirst. The pulse 80, and contracted. The loins slightly pained. Considerable irritability.

"A purge of calomel and jalap.

"Evening.—The eye red and surcharged. The countenance sharp and distressed. The tongue white. The lips dry. The mouth clammy. The skin under natural temperature. The pulse 84, rather more expanded than in the morning. Distress at stomach. Slight pain on pressing the abdomen.

"Bled to the extent of ten ounces*. Calomel and opium at bed-time. The pediluvium and fomentations to the abdomen.

"Nov. 8.—Reported as having passed a good night. Three dark-coloured stools. The eyes surcharged with blue vessels; painful on motion. No headach. The tongue white, and covered with froth. The lips pale and dry. A circumscribed flush of the cheeks. The skin rough and dry, under the natural temperature. The urine scanty. No pain whatever.

"* The propriety of bleeding may be questioned in this case, without the auxiliary aid of the warm bath. It was resorted to, principally with the view of increasing susceptibility of impression, in order that the system might be the more readily acted upon by the calomel."

" Calomel, nitre, and opium, in form of pills, every two hours. The pediluvium, and friction of the skin with hot stimulating oils.

" Evening. — There is a tendency to coma. The eye is dim and highly inflamed. Low delirium. The feet cold. Pains in the lower extremities. The pulse free and expanded, destitute of force. The skin below natural heat, dry, thick, and withered. The tongue white and clammy. The breath hot. The aspect wild. The stools black and slimy.

" Blisters were applied to the nape of the neck and epigastric region at three o'clock; but they make no impression. Fomentations, frictions, &c.

" Nov. 9. — Reported as having slept well. One copious stool in the night. Coma. At nine o'clock the pulse became wiry and frequent; the limbs cold and flabby. Complained of distress at stomach. Restlessness and irritability set in; and he vomited black.

" Evening. — The countenance is more natural. The tongue clean at the edges. Considerable debility. The pulse unenergetic, expanded. Low delirium. The conjunctiva tinged with yellow. The skin of a dingy yellow colour. Obscure hiccup.

" Calomel, camphor, and opium. Fomentations to the abdomen. Solutio nitratis argenti, gr. iij. ad ℔j.

" Nov. 10. — Delirium, and an uncommon degree of restlessness during the night. Frequent vomiting of black matter. Groaned and screamed incessantly. When asked where the pain was, he answered that he had none. He still screams loudly. The extremities are cold and flabby. The pulse not perceptible.

" Died at four, P. M.

" *Dissection.* — I examined the body two hours after death.

" *Thorax.* — The *lungs* pale and sound. The *heart* bloodless. The *pericardium* contained its usual quantity of fluid.

" *Abdomen.* — The *liver* was harder than natural, and pale. The *gall-bladder* contained a large quantity of viscid black bile. The *stomach* was distended with air; pale externally, and still more so internally: it contained a small quantity of matter resembling that of the black vomit; and the internal surface was covered with glutinous mucus, which, when rubbed off, discovered a pale, healthy surface, with the exception of a few red spots at the cardiac orifice. I do not remember to have seen, even in animals which were bled to death, the abdominal contents so pale. The *bladder* was pale, and distended with urine. The *kidneys* paler than usual. The *omentum*, and all the intestines, were pale and without blood, except that portion of the *ilium* which is united with the *cæcum*, and which was gangrened for five or six inches, without any evident marks of inflammation in the contiguous portions of the intestines. The villous coat of the intestines resembled that of the stomach, except in the gangrened part, which was clotted with blood. The *aorta* and *venæ cavæ* were bloodless, and internally of a yellow tinge, the former particularly.

" Of the state of the head I can give no account. The dissection, so far as I went, was performed by stealth, and at the hazard of being

surprised by those who would probably have handled me very roughly, had they detected me in the operation. I was acting, indeed, with the permission of a French gentleman, who owned the house in which the patient died; but so great is the aversion of the Spaniards to any examination of the sort, that I was obliged to forego the more tedious operation of laying open the head.

" Case II. *Treated by a Spanish Physician.* — Samuel Martin, aged twenty, was admitted into the hospital San Juan de Dios, at Cadiz, on the 2d of September, 1820, labouring under fever. The forehead painful. The tongue white, moist, and loaded. The eye red and painful. The lips dry. Thirst. The skin moderately heated. The bowels constipated. The patient stated that the attack was sudden, and not preceded by chills. — On the second day, the skin was dry, parched, and rough. The headach increased. No change in the state of the eye. The tongue red and dry. The lips pale and shrivelled. The pulse 79, expanded, and destitute of force. The countenance anxious and wild. The stomach irritable. General restlessness and want of sleep. Slight pain of the abdomen, and black stools. — On the third day, the skin was constricted and hard. The countenance anxious and wild. The tongue red and hard. The cheek red and circumscribed. The pulse contracted and irregular at times. One scanty, black, and offensive stool in the night. Urine scanty and fetid. Much restlessness. The skin of a dingy yellow colour. — On the fourth day there was much restlessness. The head was tossed frequently from one side to another. The countenance inanimate, anxious, and wild. The tongue brown, dry, and hard. The pulse feeble. The extremities pained. The abdomen tense and painful. An intolerable sensation of heat at the scrobiculus cordis. The skin cool, dry, withered, and thick. Blood oozes from the nose and gums. — On the fifth, black vomiting. The countenance expressive of anguish. The face of a yellow colour. The conjunctiva of a yellow tinge. The cornea dim and opaque. The pulse intermitting. The urine suppressed.

" Died on the morning of the seventh day.

" *Dissection.* — Examined in four hours after death.

" *Thorax.* — The *lungs* collapsed; adhesions to the *pleura*. *Heart* bloodless, yellow, and seemed distended with air. *Liquor pericardii* bloody. Internal coat of the *aorta* slightly inflamed, and of a dirty yellow tinge. The artery itself seemed contracted. The *vena cava ascendens* inflamed internally; bloodless, and distended with air.

" *Abdomen.* — *Stomach* moderately distended with air: a small quantity of greenish-coloured mucus adhered to the whole of the internal coat, which was gangrened towards the cardiac orifice. The quantity of fluid contained in it was small, and resembled what the patient had vomited previous to death. The *liver* and *spleen* were sound. The *gall-bladder* was not enlarged, but contained black bile somewhat more liquid than usual. The *pancreas* was gangrened, at its right extremity, to the size of a shilling. The *duodenum* contracted in parts. The *cæcum* entirely gangrened. The *colon* and *rectum* were likewise gangrened in many parts, but without any

appearance of inflammation in the neighbouring portions of the intestines. *Urinary bladder* distended with urine; and the *heart, arteries*, and *veins*, destitute of blood, owing, most probably, to that consuming process, which so peculiarly distinguishes this form of the disease."

In the preface to the tract which we have thus given an account of, we learn, that such was the malignancy of the distemper, that the author lost one patient out of every five and a half, while the Spanish Physicians, who, we are told, were no friends to active measures, lost one out of every two and a half! We are further informed, that in all the cases in which actual salivation was excited by mercury, the patients recovered.

III.

A Series of Questions and Answers, for the Use of Gentlemen preparing for their Examination at Apothecaries' Hall; with Copious and Useful Tables annexed. By CHARLES MINGAY SYDER, Licentiate of the Honourable Society of Apothecaries, &c. &c. &c.

GRINDING books are not works upon which, in the general way, we should feel disposed to stamp our probatum. We think, however, that a manual like the present might be made useful, by the student transcribing each question, appending to it his own reply, and afterwards collating such reply with that furnished by the author himself. It is only in this way that we can conscientiously recommend an employment of means, the having recourse to which implies the adoption of the very objectionable principle of short cuts to knowledge.

The little book before us is not, of course, susceptible of analysis; and we shall limit ourselves to the transcription of two of its pages, taken at random, by which the reader may judge of the execution of the whole. There is a rambling, irregular character about the tract; but that, perhaps, is rather a commendable than objectionable feature, since the less there is of encouragement given to routine and mere memory acquirement the better.

"Q. How is hæmoptysis distinguished from hæmatemesis?

"A. By the blood *coughed* up being of a florid red colour; whereas in hæmatemesis the blood *vomited* up is of a darker colour, blended with the contents of the stomach.

"Q. How would you treat hæmatemesis?

"A. If there appeared an inflammatory diathesis, by bleeding, and following an antiphlogistic treatment; if the reverse, by the exhibition of tonics, astringents, &c. &c.

" Q. What is understood by anasarca?

" A. A collection of fluid in the cellular membrane of part, or the whole of the body.

" Q. What is understood by hydrocephalus?

" A. A collection of fluid in the cavity of the cranium.

" Q. What are the symptoms of internal gangrene?

" A. A sudden cessation of pain; a very small pulse; hiccup; vomiting; cold extremities; a cadaverous appearance of the countenance; prostration of strength, &c. &c.

" Q. What are characteristic symptoms of synocha?

" A. A great increase of heat; the functions of the mind remaining unimpaired; pulse frequent, full and strong; urine high coloured, and depositing a sediment; white tongue; costiveness; great anxiety, &c. &c.

" Q. What is inflammation?

" A. Hunter defines it to be a process occasioning in a given time, and from one immediate cause, pain, swelling, and redness, which local effects are frequently attended with fever.

" Q. What are the properties of healthy bile?

" A. It should be of a yellow greenish colour; of a bitter taste; about the consistence of oil; and, when shaken, it appears frothy, similar to soap and water.

" Q. Of how many parts is the blood composed?

" A. The blood is composed of three parts:—1. Serum, the lightest; 2. coagulable lymph, or fibrin, the next; 3. the cruor, or red particles, the heaviest.

" Q. How much blood is it calculated the body contains?

" A. About 120 ounces troy, according to Professor Blumenbach.

" Q. How many times does the pulse beat in the adult in a minute?

" A. About 75 times; but it is subject to great variation.

" Q. In nephritis, what evacuants would you exhibit?

" A. Oleaginous purges; such as castor oil, &c. &c. with emollient clysters."

IV.

Miscellaneous Works of the late Robert Willan, M.D. F.R.S. F.A.S. *Comprising an Inquiry into the Antiquity of the Small-pox, Measles, and Scarlet Fever, now first published: Reports on the Diseases in London, a New Edition: and detached Papers on Medical Subjects, collected from various periodical Publications.* Edited by Ashby Smith, M.D., Licentiate of the Royal College of Physicians in London; Member of the Medical and Chirurgical Society of London, and of the Royal Medical Society of Edinburgh.

In supporting an opinion which has been opposed by most writers on the history of the " Contagious eruptive Fevers,"

Dr. Willan has displayed his well-known talents for accurate research. The Inquiry consists almost entirely of quotation, and appears, at first, to the reader, as a mass of materials intended to be afterwards worked up, rather than a finished treatise. This may result from the circumstance, that the *onus probandi* lies with the supporters of the antiquity of small-pox, measles, and scarlatina, who must, consequently, make excursions into the regions of antiquity, who must labour in the hidden mines of obsolete learning, and crowd together proofs collected from various quarters; trusting the question more to the strength of historical evidence, than to argument.

The remarks of the author are, however, occasionally seen, like a fine net-work, connecting and giving form to the whole. Many of the observations and notes will be valuable, as illustrative of the history of pestilence and of ancient nosology: and all will bear evidence of the extensive reading and great literary acquirements of Dr. Willan.

The arguments in support of the affirmative of this question (says the preface) are urged with the greatest force, and supported with some direct evidence, in the first and second chapters of his Inquiry. These were revised by him in his last illness: his farther progress in the task of correction having been terminated by his death.

The editor, Dr. Ashby Smith, in a very able preface, has anticipated the work of the reviewer, by giving an analytical sketch of the contents of the book. It is only left for us to lay before our readers the most conspicuous of the arguments for the antiquity of small-pox, &c.

In the first chapter, on the "*Vestiges of the Small-pox between the third and seventh century*," the author observes—

"The first distinct and regular account of the small-pox was given by Physicians who had practised in Egypt and Syria; but the earliest writers on the subject do not speak of the disease, as either new or unusual at the close of the sixth century, the time assigned by European historians for its primary appearance. About the year 900, Rhazes, an eminent Physician at Bagdad, wrote an express treatise on the small-pox, and collected observations from the best authors then extant, without being able to obtain the smallest information respecting its *origin*. Far from conceiving, after his long investigation, that it was a disease of modern date, he satisfied himself it existed in the second century, and was well known to Galen, though he expresses some surprise on finding that a writer so learned and voluminous should have treated of it only in a cursory manner.

"Since Aaron, a Physician and presbyter of Alexandria, A.D. 620, and the first oriental writer quoted by Rhazes, has arranged the small-pox, measles, and the pestilential bubo or carbuncle, as the pro-

ducts of one specific contagion, we might reasonably expect to find some hints respecting the variolous eruption in the accounts of pestilences occurring before his time. Impressed with such an idea, I was led to examine attentively the statements on the subject, published between the first and sixth centuries."

Dr. Willan thinks that a general term was given to many forms of epidemic disease, and that often the small-pox, measles, and scarlatina, may have been included with other varieties. He is inclined to consider some peculiar forms of disease, which are distinguished by writers, from the more prevalent pestilence, as the contagious eruptive fevers; and quotes many descriptions of complaints, in which some of the most striking phenomena, the most characteristic marks of small-pox, are described: thus he concludes, that—

" The *spreading* or *herpetic anthrax*, distinguished by Eusebius from the general loimos, was the *small-pox*, chiefly in its confluent form. The description given does not coincide with that of any other disease; and, if we compare it with the account of small-pox by the first extant author who mentions the disease under a specific name, we shall find the learned Bishop of Cæsarea much more correct than the medical presbyter. Aaron says, ' Anthrax is a hot, and epidemical apostem, arising in the groin and axilla, and often fatal on the fourth or fifth day. The flitrax, or black anthrax, is malignant: possibly that which is red may destroy, but no one can escape from that which is black or green. The latter is of the same nature as the small-pox and measles, and all other appearances of that colour upon the skin: they stand in the highest degree of malignity. Those of a saffron colour are dangerous, but of less malignity; those which are white are safe; the red generally so. All of them originate from adust blood and yellow bile.'"

The particular effect of variolous eruption on the eyes is noticed by all the Arabian medical writers.

" The destructive loimos," says Dr. Willan, " which commenced in the fifteenth year of Justinian (A. D. 540), and ravaged the greater part of Europe and Asia for more than half a century, was only noticed at first as the pestilence under its usual form. Dr. Freind has translated at large the singular account given by Procopius of the disease soon after its appearance at Constantinople. It was attended with a violent fever, with coma, or phrenitis, and with tumours in the groin or in the axillæ, or behind the ears, &c. &c. Procopius says, the physicians laid open, after the patient's death, some of the buboes, and thus detected the dreadful appearance of an adhering anthrax. This observation proves how much the carbuncle, or anthrax, connected with the bubo-fever, differed from the anthrakes diffused over the whole surface of the body in the epidemic described by Eusebius.

" Agathias's statement is similar to that of Procopius. He says, ' The disease chiefly affected young men, but not females,' and

that 'it appeared at first in its old form.' We learn, however, from Evagrius, that the disease, though considered as one and the same epidemic, did not, in the fifty succeeding years, retain the form or symptoms stated by Procopius. Evagrius expressly says, 'The complaint (παθος) consisted of different disorders. In a few persons (ενιοις), beginning from the head, and producing redness in the eyes, with a swelled face, it descended into the throat, and removed them from among men. In others there was a violent flux. In *some*, buboes arose, and from them most untoward fevers; but some persons died on the second or third day, without either mental or bodily suffering. Others, becoming comatose, resigned their life; and a sudden eruption of anthrakes destroyed multitudes of the people.' Evagrius himself had been affected with the disease while at school. Afterwards, in the visitations of the different disorders mentioned, he lost his wife, several of his children, his hinds, and his favourite slaves. He seems to have been well acquainted with the nature of contagion, and the operation of fomites; for he very correctly enumerates the various modes in which pestilential or contagious diseases are disseminated. The above pestilential constitution was, in his opinion, the longest on record, the next to it being one mentioned by Philostratus, which continued fifteen years. Evagrius's account, though not given with medical precision, evidently comprises the true pestilence, the pestilential or scarlet sore throat, and the dysentery, with the small-pox, and perhaps the measles. The outstriking carbuncles, contrasted by him with the slow glandular tumours in pestilence, must be referred to the herpetic anthrax described by Eusebius and others.

"Since this fatal epidemic continued in Asia till the year 590, it could not fail to reach the Abyssinians engaged at the siege of Mecca, in the year 569 or 570, at which time it has been asserted by Mead after Dr. Reiske, and by Mr. Bruce after an oriental writer, the small-pox primarily commenced. The infection was probably conveyed in goods brought from Suez, and other ports of the Red Sea; for we are told, according to the usual style of Arabian chronicles, that a flock of birds, with lion's faces, came from the sea, and, by letting fall minute pebbles on the Abyssinian soldiers, nearly destroyed the whole army. Hameesy, the author of the Chronicle, explains this allegorical statement, in his concluding observation:— 'It was at this time the small-pox and measles first broke out in Arabia.'"

In a note which we feel called upon to quote, it is said,—

"This *crimson gloss* in the skin of swarthy Orientals, added to the state of the throat, tends to prove that the measles and scarlatina anginosa were considered by the ancients as one and the same disease. Their hypothesis would countenance them in asserting, as above, that the eulogia was not less dangerous than the loimiké or small-pox, and explains the following passage, which is common to the Greek and Arabian physicians: an eruption of a pale red colour is bad; that which is of a dark or violet colour is fatal; but the mildest and safest eulogia is that which is not very strongly red."

Dr. Willan, having in the first chapter traced the repeated and destructive ravages of an eruptive fever, often termed loimos, but wholly different from the pestilence, for more than three centuries before the acknowledged appearance of the small-pox, is induced to inquire whether any vestige of such a disease could be found in the writers, who lived, or recorded events, in the first and second century; and to re-examine the passages in Galen, which have been supposed to refer directly to the small-pox.

" Consideration is due to the following description of a *loimic disease* by Philo, the Jewish philosopher, before the middle of the first century. He says, " The cloud of dust suddenly falling on men and cattle, produced over the whole skin a severe and untractable ulceration. The body immediately became tumid, with efflorescences or purulent phlyctænæ, which appeared like blisters excited by a secret fire beneath. Men necessarily undergoing much pain and universal soreness from ulceration and inflammation, suffered not less in body than in mind, by the severe infliction; for a continuous ulcer was observable from head to foot; these eruptions, which were at first sprinkled over the limbs and other parts, finally uniting, so as to form one uniform appearance over the whole."

Rufus, a celebrated physician at Ephesus, in the latter part of the first century, says,—

" In the loimos, every thing the most dreadful may occur, and nothing is withheld, as in any of the diseases singly. The appearances are many and various; there are different kinds of delirium, vomitings of bile, tension of the hypochondria, a sense of anxiety, frequent sweats, coldness of the extremities, bilious diarrhœa, with thin flatulent discharges; the urine, in some thin and watery, in others bilious; in others black, with a bad sediment, and enæoremata of the worst kind; hæmorrhage from the nostrils, heats in the chest, a parched tongue, watchfulness, strong convulsions; and, besides other evil ulcers, the *all-dreadful anthrakodea* may take place in the loimos, as well on the rest of the body, as on the face and tonsils."

Herodotus, the physician, describes many varieties of pestilence, and our author thinks, that, " as both he and Rufus have omitted the characteristic appearances of buboes and carbuncles, only observing, that the eruptions diffused over the face and the whole body were somewhat of the nature of carbuncles, or partly resembled them, we may conclude that the disease they describe was not the pestilence, but an epidemical, contagious, destructive, and all-dreadful eruptive fever, of which history affords no parallel but in the small-pox."

We do not think that the quotations from Galen describe so nearly the contagious eruptive fever, as others we have laid before our readers. Dr. W., however, thinks that this celebrated Physician has had small-pox in view, in the de-

scriptions of some of the varieties of epidemic disease which he has given :—

" It may be said, if the small-pox chiefly constituted the loimos in the time of Galen, he, after so long an exposure to it in Rome, could not have escaped the contagion. To this objection his works afford an answer; since it appears (Lib. de Cucurbitulis), that he was affected with the disease before he quitted Asia Minor; and was, as he thought, preserved, with many others, in a very destructive loimos, by copious bleeding. The practice there was to draw off two pounds of blood, by scarifying and cupping, on the second day of fever, if *no remission appeared.*

" Galen himself seems cautious in applying the term anthrakes to the pestilental pustular disease he has described; but we may collect from him that the inhabitants of Asia Minor, his contemporaries, employed the word in that sense, or according to its acceptation by Rufus the Ephesian, by Eusebius, Cedrenus, &c. one hundred years afterwards, page 6, and 27. Thus he says, in speaking of the ramifications of the subcutaneous jugular vein: ' Putrid diatheses sometimes occasion the skin to separate extensively, so that the naked veins may be clearly seen. This took place frequently, *on every part of the body*, in Asia, during the time of the *epidemic* anthrakes, which induced those who beheld the sufferers to think them more like apes than men.' "

The following passage is curious :—

" One is almost induced to believe, from a passage in Dion Cassius, that some mode of inoculation had been attempted in the reign of Domitian (A. D. 92), and revived under the emperor Commodus. After mentioning the great pestilence, A. D. 189, he adds, ' Many died in another way, not only at Rome, but over nearly the whole empire, through the practices of miscreants, who, by means of small poisoned needles, communicated, for a reward, the horrid infection so extensively, that no computation could be made of the numbers that perished.' "

The third chapter, on the " Evidences of Small-pox before the Christian Era," though rich in quotation, is, we think, deficient in proof. Those descriptions of diseases resembling small-pox, which abounded in the two first chapters, are not to be met with here: the argument for the existence of the same disease at a more distant period, rests principally upon the continuance of similar names from a very remote age, till the time when they were undoubtedly attached to this complaint.

We may quote —

" As the angina maligna was, for many ages, thought generically different from the scarlatina febris, so was the *confluent vesicular small-pox* deemed a principal branch of the *loimos*, or *pestilential fever*, while the *distinct* and *coherent variolæ*, with yellowish pustules, and a moderate fever, were ranked with phlyzacia, ecthymata,

lichenes agrii, &c.—This may be traced up to Hippocrates:—He, as well as Galen, speaks of *pemphigoid* fevers, fevers with phlyctænæ, and the anthrakes, as *pestilential and malignant;* and of another set of fevers, in which appear *critical*, *inflamed*, and *suppurative* tubercles, or pustules. Thus he says, (Coac. Prænot. sect. 2,) 'An eruption of phlyzacia, over the whole body, in fevers without remission, may prove fatal, if there be not a formation of matter, especially about the ear.'"

It will be well, in studying the history of pestilence, to bear in mind what Dr. Willan remarks:—

"The terms *pestis* and *pestilentia*, were used, by the Romans, in the same extensive signification as were loimos and loimödes, by the Greeks,—and therefore comprised the necrosis, and the murrain, besides every contagious, epidemical fever.—Julius Cæsar applies the word pestilentia to express the disease produced by famine, or by the deprivation of suitable and sufficient food.—In this sense it is also frequently employed by Livy, in the Roman History. Of the year 451, before Christ, he says, 'Fames, pestilentiaque—fœda homini, fœda pecori, &c.'

"Ant. Chr. 396. 'Tristem hiemem gravis, pestilensque omnibus animalibus æstas excepit, insanabili pernicie.'

"Ant. Chr. 277. 'Urbem adfecit pestilentia, pecudes hominesque, commune strage corripiens, sed præcipuè gravidarum abortibus formidabilis.' This effect took place in all animals, and was referred by historians to the want of proper food. Thus, every third or fourth year is noted by Livy as *tempus grave*, or *annus pestilens*, and, on some occasions, the distress continued for two or three successive years. The mortality was referred to the anger of the gods, for national crimes or neglect of observances, to inclement seasons, to vapours blown from unhealthy climates, to poison, and to witchcraft. Under the last impression, several respectable matrons of Rome were, at different times, tried and condemned, on confessions made, we must suppose, under torture. The real cause of such frequent calamities was overlooked. Being constantly engaged in war, the Romans did not cultivate the district round their city sufficiently to procure food for half its inhabitants, nor had they any established commercial intercourse with other countries, from which they could be supplied in times of scarcity."

Dr. Willan, in his fourth chapter, intends to prove that the small-pox was prevalent in Britain and Ireland, and on the Continent of Europe, prior to the supposed origin of the disease in Arabia.

"Gregory, Bishop of Tours, in his history of the Franks, has given the following particulars respecting it:—

"In the 5th year of King Childebert (i. e. A.D. 580), great floods, tempests, hail, earthquakes, and several prodigies, were succeeded by a dreadful plague (lues); for almost every district of France was occupied by a dysenteric disease, in which the patients were affected

with violent vomiting, fever, headach, and excruciating pain in the loins: what they discharged from the mouth was green or yellowish. Many persons asserted this was the effect of some hidden poison. Rustics called it the *cleansing pox*, under an idea not destitute of probability, because, when cupping-glasses were applied to the legs, or between the shoulders, during the progress and eruption of the vesicles, many patients were freed from disorder by the discharge of sanies. Further, the herbs, which are taken as antidotes to poison, proved salutary in a number of cases.'—This epidemic was particularly fatal to infants and children.—King Chilperic recovered with difficulty, but he lost his two sons. Austrigilda, Queen of Orleans, sank under this disease. She retained to the last the ferocious and vindictive spirit of the times, having exacted a promise from the King (Gunthran) that her two Physicians should be put to death if they did not save her. Soon after she expired, both of them were stabbed by the king's order."

Different names were employed, as dysenteria, pustular diseases, pusula, or pusulæ, pustularum morbus, &c.; all, as our author thinks, to designate small-pox.

"If any one should still hesitate to apply the passages above quoted to the small-pox, his doubts must, I think, be removed, on a perusal of the subsequent narrative, in which the vesicular or pustular lues is described without the epithet *dysentericus*.

"Last year, the state of Tours was *desolated* by a severe pestilential sickness (lue valetudinaria). Such was the nature of the infirmity (*languor*), that a person, after being seized with a violent fever, was covered all over with vesicles and small pustules (vesicis ac minutis pustulis). The vesicles were white, hard, unyielding, and very painful. If the patient survived to their maturation, they broke, and began to discharge, when the pain was greatly increased by the adhesion of the clothes to the body.—In this malady the medical art did not avail without the assistance of St. Martin; for many were restored, who sought a benediction from his holy temple. Among others, the lady of Count Eborin, while labouring under this pest, was so covered with the vesicles, that neither her hands, nor feet, nor any part of the body, remained exempt, for even her eyes were wholly closed up by them. When nearly at the point of death, she received some of the water in which the tomb of the blessed saint had been washed at the Lord's Passover. This having been taken as a drink, and applied to her sores, the fever abated, the discharge from the vesicles was made without pain, and she was soon after healed."

This last description is certainly much in favour of Dr. W.'s opinion. We quote also—

"The dysenteriæ morbus, inflicted, according to Aimon Monachus, on the invading Normans, after they had violated the Oratory of St. Germanus, at Paris, A.D. 846, was not the dysentery in the received sense of the term, but coincided in circumstances with the

pestilential disease described by Bishop Gregory. The offenders perished daily in great numbers, and many were smitten with blindness. In stating the case of Kobbo, the king's lieutenant, Aimon informs us his whole body became turgid, so that neither a feature nor any organ of sense was discernible, and his abdomen distended even to bursting*. Many others (he says) were affected in a similar manner, till the king, fearing the *contagion* would reach himself and his nobles, determined to stop, by a bold manœuvre, the further progress of the disorder†."

"M. Du Fresne has noted the frequent recurrence, in the Acta Sanctorum, of the terms variola, vayrola, veyrola, vayrora, variolus, and morbus varicus, between the years 800 and 1400.—Among the miracles exhibited, A. D. 864, at the tomb of St. Ludger, in Westphalia, the following is recorded in the Fulda MSS.

"A man of the village of Bramseli, named Rodbrand, was sick unto death by an infirmity, which they call variola, and had struggled nine days under it without hope of recovery. His whole body, covered with ulcerations, or turgid vesicles, had a dreadful appearance, &c. &c. He was then carried out to the high road‡, and with his feet directed towards St. Ludger's monastery, he pledged himself by a solemn vow to make a pilgrimage thither, with offerings, in case of his recovery. On this, he became convalescent, and all around were astonished when they saw the man, whose visage, from the number of pustules and great inflation of the features, was scarcely human, restored almost instantaneously to his pristine state and appearance."

Our author traces the introduction of the contagious eruptive fevers into Britain to the period of the propagation of Christianity by Italian monks, assisted by French presbyters. After the establishment of religious houses in different districts, "repeated mention is made of a pestilential or contagious disorder, which spread from monastery to monastery, and to the neighbouring inhabitants."

The latter part of the inquiry contains some interesting

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* "Rhazes says, 'Quando cæperint variolæ, ad invicem connexæ, confluere et dilatari, et molestia vehemens sit, et venter inflatus tumescat, huic ægroto mors propinqua est.' Cap. 14."

† "Practitioners may wish to inquire under what mode of philosophizing the Norman monarch formed his plan of security. The philosophy of a barbarian despot does not extend far beyond the operations of the sword. On this occasion, the king cut off the heads of all his followers who had received the infection, or who had been exposed to it, and suddenly decamped with the rest.—See Acta S. Germani, May, tom. vi."

‡ "The above narrative cannot fail to remind the medical reader of the remarkable case of small-pox related by Sydenham, (Opera, p. 121), in which the patient, supposed to be dead and laid out as a corpse upon a table, was resuscitated by the free admission of cold air, and ultimately recovered."—A. S.

accounts of various forms of pestilence in Britain, but terminates abruptly; and, indeed, bears every mark of being in an unfinished state. We have much to regret the circumstances which have prevented the completion of a task so magnificently begun.

It may be interesting to the Medical world to know that "Dr. Willan was engaged, at the time of his death, in collecting materials for a history of the lues venerea, of the existence of which, in ancient times, he was inclined to think that the records of medicine furnish satisfactory evidence."

It has been our aim to place before our readers the leading facts mentioned by Dr. Willan, in support of the antiquity of small-pox. It is not a question for discussion; the inquirer must determine for himself whether the evidence is sufficiently precise and direct to convince him of the existence of the "contagious eruptive fevers" among the ancients.

But the work itself must be read by those who would enjoy the stores of learning which enrich it. We cannot compress the annotations and quotations which render it an important addition to Medical literature.

The other articles in the book are not of a nature to be passed in review by us.

V.

A View of the Structure, Functions, and Disorders of the Stomach, and Alimentary Organs of the Human Body; with Physiological Observations and Remarks upon the Qualities and Effects of Food and Fermented Liquors. By Thomas Hare, F.L.S., &c. Fellow of the Royal College of Surgeons in London.

There is a good deal of ingenuity and of science in this production; and, although it is not exactly the kind of book for analysis, we have thought it right, from a sense of its merits, to bring it before the notice of our readers. The matter, for the most part, indeed, is of a popular cast, and rudimental character; but still there are passages in the volume, which even the erudite physiologist will find original and instructive. Of these we had noted down several for transcription, but we find our limits say nay to our intention; and we must be content with expressing ourselves generally in favour of the work, remarking, at the same time, that, mixed up with a good deal of what is scientific, the reader will occasionally have to complain of being served with common place. When authors attempt the combination of technical

with popular instruction, they can scarcely avoid that fault to which we now refer.

In the chapter respecting the economy and diseases of the teeth, the writer gives the following aphoristic recapitulation of his views and principles.

He says:—

"I. That enamel is constituted by a longitudinal arrangement of prisms; and that each prism is made up of an aggregation of molecules, each distinct figure of which is a rhomb.

"II. That longitudinal cracks of the enamel are directed by the corresponding arrangement of its prisms; and that they may be rendered undulating, as they often appear by the rhomboidal figure of those molecules, which in the aggregate compose the prism.

"III. That the arrangement of the rhomboidal molecules directs the diagonal fracture of the enamel.

"IV. That the aggregation of rhomboidal molecules mechanically facilitates the disintegration of the enamel by compression from the lateral surfaces of adjoining teeth, thereby giving extraneous matters an opportunity of acting at large upon the whole substance of the tooth compressed.

"V. That the aggregation of the molecules is favourable in particular to the insidious agency of acrid and decomposing fluids, which are modified as to their chemical influence by the state of the stomach, by various matters of aliment as soon as they come within the lips, and by various nostrums which are used for cleaning the teeth, and, according to the language of quackery, "strengthening the gums."

"VI. That by this decomposition of the enamel a denudation of the bone is effected, and an ulceration of its substance established, after the manner of an ulceration of the soft solids.

"VII. That by a similar decomposition of the enamel at a depressed or contracted point, the decay of the lower surfaces of the upper teeth, and of the upper surfaces of the under teeth, is accounted for.

"VIII. That the cancellated structure of bone is directed by the shooting of prismatic crystallizations of calcareous earth through gelatinous matter, the viscidity of which, together with the force which one prism may oppose to another, occasions those irregularities of space which the cancelli exhibit; and that such opposing forces may also occasion a disintegration of the molecules of the prism, which is also a cause of irregular structure.

"IX. That the length of time which caries may exist without giving any pain, depends entirely upon the distribution of the nerve; and that tooth-ache takes place sooner or later in proportion as its branches are superficial or deep seated, so that the finest tooth, with only a small carious defect, may occasion as much agony as one with a vast cavity.

"X. That decayed bone is the actual and immediate cause of tooth-ache, as soon as it comes in contact with any part of the nerve.

" XI. That the nerve ramifies throughout the substance of a perfect tooth, and distributes filaments upon the membrane of its bone immediately under the enamel.

" XII. That when scurvy attacks the gums, its baneful influence is communicated to the membrane of the fang and socket; and from thence by absorption to the internal substance of the teeth, whereby the looseness so commonly attendant on scorbutic influence is readily accounted for.

" XIII. That tartar is no other than a condensation of vitiated mucus and extraneous matter, which a disordered stomach occasions upon the surface of the tongue, where, by reason of its viscidity, the saliva has not the power sufficiently to dilute it; and that by inattention to the constant cleansing of the tongue, it actually acquires a degree of putrefaction, which accounts for the dark colour of tartar that has long been allowed to accrete.

" XIV. That acrimonious saliva excites the painfulness of diseased teeth more frequently than any other stimulant, and that a regulation of the stomach alone may be looked to for a pailliation of morbid acrimony."

PART III.

SELECTIONS.

Remarks tending to facilitate the Analysis of Spring and Mineral Waters. By John Dalton*.

(From the Philosophical Magazine.)

It cannot but fall under the observation of every one, that the health and comfort of families, and the conveniences of domestic life, are materially affected by the supply of that most necessary article, water. The quality of water is undoubtedly of great importance in the arts of brewing, baking, and various others connected with the preparation of food; as also in the washing and bleaching of linen and cotton, and in other operations where cleanliness is the object in view. Many of the manufactories are materially interested, likewise, in the qualities of water, and in the methods of rendering it subservient to their exigencies, when it happens to be presented to them in an obnoxious form. On all these accounts, I thought it might be of some service to offer a few

* From the Memoirs of the Literary and Philosophical Society of Manchester.

remarks on the subject, which, perhaps, may benefit those who have not made the science of chemistry a peculiar object of study.

Most writers consider the analysis of waters as a problem requiring great skill and acquaintance with chemistry; but the modern improvements in that science have rendered it much less so than formerly. It is true, that the variety of elements sometimes found in water, and the extremely small quantities of them, are discouraging circumstances, when the object of analysis is to ascertain both the *kind* and *quantity* of these foreign elements. They may both, however, be investigated without much labour, when proper means are used; and perhaps a little practice may render a person qualified to undertake the task, who is no great adept in chemical science in general.

Most spring water that is obtained by sinking some depth into the earth, contains lime, held in solution by some one or more acids, particularly the carbonic and sulphuric acids.

It is to these salts, the carbonate and sulphate of lime principally, that spring water owes its quality of *hardness*, as it is called; a very singular and astonishing quality, when it is considered as produced by so extremely small a portion of the earthy salt. The other earthy salts, or those of magnesia, barytes, and alumine, produce the same effect nearly; but they are rarely met with, compared with those of lime.

When any earthy salt is dissolved in pure distilled or rain water, it increases the specific gravity of the water; but, in the instance of spring water in general, this test is rendered of little use, because the increase of specific gravity is so small, as almost to elude the nicest instrument that can be made. I have, however, an instrument, made by an artist in this town, which is nothing more than the common glass hydrometer, but with an unusually fine small stem, that shows the superior gravity of spring water. It cannot, indeed, be brought in competition with other methods for ascertaining the relative hardness of spring water; but it is a most useful instrument in other departments of chemical investigation, particularly in determining minute portions of residual salt after precipitations*. It may well be conceived, that the specific gravity cannot constitute a test of the hardness of water, when we find that *one grain* of earthy salt, dissolved in

* The scale of the hydrometer is one inch and a half long, and it is divided into 25°, each degree corresponding nearly to ·0004; the difference between distilled water and common spring water is usually about 1° on the instrument; and that between distilled or rain water and the strongest lime-water is 4°.

2000 grains of pure water, converts it into the hardest spring water that is commonly found.

We shall now proceed to notice some of the most useful tests in the analysis of waters.

1. *Soap Test.* — When a piece of soap is agitated in distilled or pure rain water, a part of it is dissolved, producing a milky liquid, which continues for many days unaltered. But when soap is agitated with hard spring water, the milkiness produced almost instantly degenerates into a curdy substance, which rises to the surface, and leaves the liquid below nearly transparent. This curdy substance is understood to be the earth of the salt combined with the oil of the soap. It has a glutinous, unpleasant feel when rubbed upon the hands; and soils glass and other vessels, so as to require hard pressure of a cloth to remove it. Though this test sufficiently distinguishes hard water from soft or pure water, it is not equal to form an accurate comparison of the hardness of two kinds of water.

2. *Lime-Water Test.* — Most spring water, fresh from the well, will exhibit milkiness by lime-water; this is usually occasioned by the water holding supercarbonate of lime in solution; the addition of lime-water reduces the supercarbonate to carbonate, which is insoluble, and falls down in the state of a white granular powder. When a spring contains nothing but supercarbonate of lime, which is the case with the water of an excellent pump in this neighbourhood, lime-water is the only test wanted to ascertain the proportion of salt in it. Let a given portion of the spring water be saturated by lime-water, adding it as long as milkiness ensues; the carbonate of lime is precipitated, and may be determined by the usual means. I find it, however, rather preferable to add a small excess of lime-water, to secure the precipitation of the whole acid: when the salt has subsided, the clear liquid may be poured off, and tested by an acid, and the salt may be dissolved by test muriatic or nitric acids. Thus the whole quantity of lime will be found; from which, deducting that added in lime-water, there will remain the lime in the spring water originally combined with the carbonic acid. In this way I find the supercarbonate of lime in five ounces of the water above mentioned to consist of

·48 lime,
·77 carb. acid,

1·25,

being about one grain of salt in 2000 of water. This kind of water is hard, and curdles soap; but it is much softened

by boiling, and deposits the incrustation so often found in kettles, &c. If water contains sulphate of lime along with supercarbonate, the same treatment may still be adopted, as far as respects the supercarbonate. I have recently found, with some surprise, that the supercarbonate of lime, as I call it, existing in waters, or made artificially, is rather an *alkaline* than *acid* compound.

3. *Acetate and Nitrate of Lead Tests.* — These salts are easily obtained in great purity, and are excellent tests for carbonic and sulphuric acid, which they precipitate immediately in combination with the lead. If the precipitate be treated with nitric acid, the carbonate of lead is instantly dissolved, and the sulphate of lead (if present) remains undissolved, and may be collected and dried; from which the quantity of sulphuric acid may be determined.

4. *Nitrate and Muriate of Barytes Tests.* — When the object is to ascertain the presence of sulphuric acid, either free or combined, these are the best tests. The sulphate of barytes is, perhaps, the most insoluble salt known. Even rain water collected from slated houses, though softer than spring or river water, exhibits by these tests one grain of sulphuric acid in twenty or thirty thousand grains.

5. *Oxalic Acid Test.* — When the object is to obtain the lime, either free or combined, in any water, this is the best test. It may be proper to add a little ammonia in some cases of combined lime. The oxalate of lime slowly precipitates in the state of an insoluble salt. The quantity of lime may be ascertained, either by collecting the precipitate, or by carefully and gradually adding the due quantity of acid, and no more, when the strength of the acid has been previously ascertained.

6. *Nitrate of Silver and Mercury Tests.* — These are tests of muriatic acid or of muriates; the muriates of silver and mercury are formed, both insoluble salts. It does not often happen that spring waters contain notable proportions of the muriatic acid, either free or combined.

7. *Sulphuretted Hydrogen-Water and Hydro-sulphurets.* — These are excellent tests for lead, mercury, and several metals, giving peculiar insoluble precipitates of the sulphurets of those metals. One grain of lead, precipitated by sulphuretted hydrogen, would be sufficient to give a great many gallons of water a dark brown tinge. When sulphuretted hydrogen is found in mineral waters, as those of Harrowgate, it may be known by the smell; but solutions of lead are much superior tests, giving a black or brown tinge to such waters immediately.

8. *Tincture of Galls and Prussiates of Potash and Lime Tests.*—These are proper for the detection of iron, the former giving a black precipitate, and the latter a blue one; but a portion of the solution of oxymuriate of lime requires to be added previously to the water, if it contains the green oxide of iron in solution, in order to convert it to the red oxide.

There are many other tests than those I have enumerated; but they are more than can usually be wanted in the analysis of ordinary springs. My object is not to give a catalogue of tests; but to show in what manner their application may be improved, and reduced to a system intelligible to moderate proficients.

The improvements I would propose in the use of tests are, that the exact quantities of the ingredients in each test should be previously ascertained, and marked on the label of the bottle: this might easily be done, in most of them, in the present state of chemical science. We should then drop in certain known quantities of each, from a dropping tube graduated into grains, till the required effect was produced; then, from the quantity of the test required, the quantity of saline matter in the water might be determined, without the trouble of collecting the precipitate; or, if this was done, the one method would be a check upon the other.

I shall now close this imperfect sketch by a few observations and experiments, which I have noticed in the course of the present week, relative to the subject before us.

I assayed the water supplied by the Manchester water-works, and found it nearly as I expected; river water is most commonly softer than spring water, and harder than rain water. This is the case with the water in question. It contains a very little sulphate of lime, and some carbonate; but only one half of the earthy matter that the above-mentioned pump water contains. It curdles a little with soap, but gives no precipitate with lime-water. It contains about one grain of earthy salts in 4000 of water.

When spring water contains supercarbonate of lime, boiling it precipitates the greater part of the carbonate, and expels the excess of acid. Hence the *furring* of pans and tea-kettles with this kind of water. By boiling the water, it is, of course, rendered much softer than before. It may then be used for washing, scarcely curdling soap; but it still contains about one third of the earthy salt, and gives milkiness with acetate of lead. If a water contain only sulphate of lime, boiling does not, I apprehend, soften it at all.

When spring water is used by manufacturers for washing, &c., it is advantageous to have it some time exposed to the

atmosphere, in a reservoir with a large surface. This exposition suffers the carbonic acid in part to escape, and the carbonate of lime to precipitate; and in some degree supersedes the necessity of boiling the water. The more any spring is drawn from, the softer the water becomes, it should seem. I have this morning examined a spring which yields many thousand gallons every day. The water is comparatively soft; it does not curdle scarcely at all with soap; it is very nearly as soft as the before-mentioned pump water boiled. The hardness in it arises from a little sulphate of lime and a little carbonate.

One of the most striking facts I have observed is, that all spring water containing carbonate or supercarbonate of lime, is essentially *limy* or alkaline by the colour tests. And this alkalinity is not destroyed, till some more powerful acid, such as the sulphuric or muriatic, is added, sufficient to saturate the whole of the lime. Indeed, these acids may be considered as sufficient for tests of the quantity of lime in such waters, and nothing more is required than to mark the quantity of acid necessary to neutralize the lime. It does not signify whether the spring water is boiled or unboiled, nor whether it contains sulphate of lime along with the carbonate; it is still *limy* in proportion to the quantity of carbonate of lime it contains. Agreeably to this idea, too, I find that the metallic oxides, as those of iron or copper, are thrown down by common spring water, just the same as by free lime. Notwithstanding this, carbonate of lime in solution with water contains twice the acid that chalk or limestone does. I fully expected the supercarbonate of lime in solution to be *acid*. But it is strongly alkaline, and scarcely any quantity of carbonic acid water put to it will overcome this alkalinity. Pure carbonic acid water is, however, *acid* to the tests. I could not be convinced of the remarkable fact stated in this paragraph, till I actually formed supercarbonate of lime, by supersaturating lime-water in the usual way, till the liquid from being milky became clear. It still continued limy, and was even doubtfully so, when two or three times the quantity of acid was added. It should seem, then, to be as impossible to obtain a *neutral* carbonate of lime, as it is to obtain a *neutral* carbonate of ammonia, in the sense here attached to the word neutral.

PART IV.

FOREIGN MEDICAL SCIENCE AND LITERATURE.

[We were just about translating a Paper from a French Journal, when a surgical friend, on whose judgment we set a high value, called our attention to the excellencies of the following Essay. It is on that account that we again draw upon our Transatlantic friends for the supply of the Foreign Department.—Ed.]

An Essay on the Devastation of the Gums, and the Alveolar Processes. By L. Koecker, Esq. Dentist, Honorary Member of the Philadelphia Medical Society, &c.

This disease, I suspect, is far from being accurately understood, and is generally supposed to be incurable. The remarks which I am about to offer on it, are the result of close practical observation; and as the subject is of no inconsiderable importance, they may not, perhaps, prove either useless or unacceptable.

In his Natural History of the Teeth*, Mr. Hunter says, "How far these diseases can be prevented and cured, is, I believe, not known." Fox† differs very little from Hunter on this point. He speaks of the affection in so vague a manner, and so much so, indeed, of its cure, that I am inclined to believe he never saw one effected, at least when it had advanced to any considerable extent. At all events, I feel persuaded that the subject has not been considered with sufficient attention by those writers who have come under my notice‡.

* Vol. i. p. 51. † Natural History, &c. Part ii. p. 95.

‡ The late Dr. La Roche informed me that he had seen this disease very frequently in the French colonies, and in persons of different ages,—that its progress was very rapid, and that it was generally considered peculiar to the climate, and altogether incurable.

In 1812, during my short practice in Lancaster, I saw a gentleman, aged about forty-five years, who had been deprived of the use of all his teeth from this disease. He showed me about twenty which were tolerably sound. He mentioned that eight years had passed before the whole were lost; during that period he suffered much pain, and enjoyed neither peace nor comfort till he was deprived of every tooth. He was so contented with the relief which the entire loss of his teeth occasioned, that my proposition to supply him with a set of artificial ones, was rejected without the least hesitation.

This disease I have met with in its different stages, and have always succeeded in curing it by the mode of treatment which I am now to describe.

Cases of this nature have their beginning generally, in an inflammation and suppuration of the gums, which gradually extend to the periosteum of the alveolar processes, and of the teeth: or they begin by an inflammation of these parts, which is afterwards communicated to the gums. They very rarely originate in the alveoli themselves.

The inflammation and suppuration are sometimes violent, and the absorption goes on rapidly; while, in other instances, it is so slow in its progress as to be scarcely perceptible, and the suppuration destroys the gums in a very gradual manner, attended by the absorption of the alveoli and their periosteum. The teeth now losing their support, become loose, and drop out successively.

The disease seldom attacks all the alveolar processes at once, but generally begins at some one part of the mouth. I have seen it commence at the incisores, though more frequently at the molares.

The crowns, necks, and particularly the exposed parts of the roots, are frequently covered with a greenish glutinous substance, and with adhering tartar. The spaces between the teeth are filled up with a tartar of a dark brown or greenish colour, but sometimes of the usual appearance; and in other instances I have even seen them so clean as to deceive a superficial observer; but a close examination has invariably found some tartar adhering to the roots, and pressing upon the alveolar processes, hid under the edges of the gums, and in the spaces between the teeth.

The gums are, for the most part, much swelled and inflamed, attended by a thin pus-like discharge from between them and the roots of the teeth, occasioning an offensive smell. These parts sometimes exhibit a pretty healthy appearance, though never, as far at least as my experience extends, perfectly free from inflammation, as Hunter and Fox have stated.

As already intimated, this disease frequently in the beginning proceeds very slowly, and often affects only certain parts of the gums for many years. When once, however, it becomes general, it goes on with such rapidity, that while one tooth is dropping out, others are so loose, that the slightest pressure almost will make them fall from their sockets.

Persons of robust constitutions are very liable to this affection of the gums, and it shows itself oftener after the age of forty than any other time. Their teeth are many times per-

fectly sound, or very little affected with caries, though I have occasionally met with them considerably diseased and painful.

Among other remote causes of the disease, may be enumerated a scorbutic and scrofulous habit affecting the gums; the frequent and inordinate use of mercury; great irregularities in the position of the teeth; neglect of cleanliness; smoking and chewing of tobacco; operations of different kinds injudiciously performed, such, for example, as the filing of the teeth, when the general state of the mouth, from an imperfect healthy action, is not capable of bearing the unavoidable irritation which it occasions, or where too great violence is used in this operation, even in a healthy state of the mouth. Certain tooth powders may also be mentioned, as charcoal, from the irritation which it mechanically excites in the gums.

By the above causes, a collection of tartar, without which I have never seen this disease, is deposited upon particular parts of the teeth; and this becomes the immediate or exciting cause of the disease, and, so long as it is suffered to remain, entirely prevents the success of such efforts as nature may make for the accomplishment of a cure.

When the disease has advanced considerably, and some of the teeth have already become much exposed and loose, they prove another, and a more powerfully aggravating cause. The disease having, therefore, proceeded thus far, it may be considered as near its height, since the teeth will now fall out one after the other, till they are all lost.

The mode of treatment consists in first checking the diseased action which has become habitual, and in producing a general healthy disposition in the diseased parts, and those connected with them, by removing the exciting causes; and secondly, in preventing their recurrence.

The first indication is realized by extracting such teeth as are too much affected by the disease to be capable of permanent restoration, and by a complete removal of the tartar and glutinous matter covering the remaining teeth and their fangs, which produce the irritation in the alveolar processes. The second indication is met by removing such remote causes as may still exist, or, if this cannot be done, by counteracting their influence. When of a general character, such as from scurvy, scrofula, or the effects of mercury, constitutional remedies combined with topical means are required. Being local, however, that treatment to which I now beg leave to draw the particular attention of the reader, is only demanded. The remedies prescribed for the removal of the causes mentioned, are of very great im-

portance. Considerable irregularity of the teeth existing, such teeth as excite, from their unnatural situation, a constant irritation, either in the opposite teeth or upon their gums and alveoli, should be removed, and thus the effects of their irregularities prevented. Operations injudiciously performed, require such remedies as will remove the injurious effects resulting from them. The individual having been entirely neglectful in cleansing his teeth, or where this has been done in an improper manner, more careful attention, under the direction of a skilful dentist, to these circumstances, will be demanded, in order to prevent the re-accumulation of tartar.

With the foregoing measures may be combined some astringent or tonic washes, such as the diluted tincture of Peruvian bark and myrrh, which I have found very serviceable.

Considerable experience and judgment are required to discriminate at once between those teeth which may be capable of preservation, and such as ought to be extracted.

The principal and fundamental curative means in the disease of the alveolar processes, are the removal of teeth so much injured from the effects of the disease as to have become a direct exciting cause to its further progress, as well as of those which are at the moment, from a variety of circumstances, indirect causes, and must unavoidably become, in the progress of time, sources of the irritation and morbid condition of the surrounding parts. The disease, therefore, being so far advanced as to render it necessary to extract some of the teeth, this operation must precede every other remedial attempt; since, omitting this, a cure is impossible, and all other operations not only prove fruitless, but have an immediate tendency to increase the irritability of the affected parts, and the violence and rapidity of the disease itself.

It is hence a matter of considerable moment to establish some guide, as far, at least, as the intricacy of the subject will allow, by which we may be directed in deciding upon those circumstances that ought to induce us to extract the teeth, or to make efforts to preserve them. In such an estimate, the weight which a number of considerations of a minute and incidental character should have upon the determination and conduct of the operator, must be left very much to his own judgment and experience.

The incisores and cuspidati being the most important teeth, the main attention is always to be directed to them. They are, fortunately, from their natural situation, and from their peculiar formation and functions, not only the most

favoured, but they are, besides, capable of suffering more from this disease, without being destroyed, than the other teeth. They may, indeed, be preserved, even when not more than one half of the alveolar processes remains, provided that a considerable portion of the fang continues united to the alveoli by its periosteum. I would always endeavour to preserve them, unless they were very loose. More, however, than one half of the alveolar cavity being absorbed, and where the tooth is very loose, or has lost its vitality, it must be extracted for the benefit of those adjoining.

The bicuspides, and molares, are much less favourable for preservation than those just mentioned, and the process of mastication imposes on them a greater mechanical irritation. They are also more inconveniently situated and formed, and generally have several roots; in consequence of which the difficulty of keeping them free from tartar is not a little increased.

They should be extracted: First, when they are very loose, as I consider teeth in this state a direct cause of disease, from the constant irritation which they occasion to the alveoli: secondly, when the alveolar processes have receded from them so much as to expose the spaces between the fangs of the tooth; since then it will be impossible to prevent the reaccumulation of tartar in these places, which inevitably continues the disease, and from which such teeth are to be considered its indirect causes. The suppuration cannot fail to be sustained by the irritation of the tartar, until the tooth becomes loose, and is then, itself, both a direct and indirect exciting cause of the disease.

No one of the molares should be permitted to remain, where it has no antagonist, particularly if it is situated in the upper jaw. The utility of such teeth is destroyed for want of an opposing surface to act upon, and they have, therefore, an influence upon the surrounding parts not unlike an extraneous body. As for instance, should there be by accident an interval between two antagonists when the jaw is closed, nature uniformly attempts to remedy the evil. The cavity of the alveoli, in the first place, contracts at its bottom, and drives out the tooth until it meets its opponent, by which the necessary stimulus is restored, and the morbid action cured. If a tooth is lost entirely, it produces, in a similar manner, the destruction of the one opposite. This long struggle of nature, at last will involve, in a greater or lesser degree, all the other teeth in a like morbid condition. It is necessary, therefore, to end it by extraction.

Every tooth that has lost its vitality, as well as every stump, should be taken away, and also those teeth, which,

from an irregular situation or direction, excite a mechanical irritation.

Teeth to be removed must be extracted with great skill, and all at the same sitting; because it would almost obviate, or at least greatly lessen, the desired effects, if the operations were performed at different intervals. This advice is the result of much experience, and merits, I think, some consideration. The bleeding from the sockets should be encouraged by warm water taken into the mouth, at short intervals, during the different operations, and continued for some time, as the effects are of much importance. A gentle astringent wash may be subsequently employed for several days. I have generally found the following simple preparations the most useful: —

℞ Mel Despumat. ℥iij.
Acid. Vini, ℥j.

This, diluted, in the proportion of three tablespoonsful to a pint of warm sage tea or water, and used frequently during the day.

℞ Mel Despumat.
Tinct. Cinchon. āā ℥ij.
Mix and dilute as above.

℞ Mel Despumat.
Tinct. Myrrh, āā ℥ij.
Mix and use as above.

℞ Mel,
Tinct. Catechu, āā ℥j.
Mix, dilute, and use as above.

In about ten or fourteen days after the removal of the teeth, the inflammation is found considerably subsided, the gums assume a more healthy appearance, and the teeth grow, in a corresponding degree, firmly in their sockets.

The tartar should now be removed, and there is often much difficulty in doing this well. It adheres so firmly to the necks and roots of the teeth, which are generally more or less loose — it is attached so closely to the alveolar processes, and is in many cases so covered by the edges of the gums, and so hid between the teeth, that it is not without the utmost care we are able to avoid irritating the gums and periosteum with the instruments employed. The operation, on this account, is to be performed with the greatest caution and delicacy, in order as well to remove the tartar perfectly, as to avoid making the teeth still more loose.

Instead of believing that the removal of all the tartar

at the same time can endanger the teeth, by exposing them, as asserted by several writers, it seems to me, when it can be effected, the sooner they are relieved from such a pernicious coat, the more we contribute to their preservation. Yet we are, in this case, oftentimes under the necessity of contenting ourselves with the removal of a certain portion at once, and finish the remainder after a lapse of eight or ten days. As the tartar is most injurious in those parts where it presses upon the alveolar processes, it is highly necessary that every particle of it should be removed.

After the stony matter, or hard tartar, has been taken away, the removal of the green mucus is still an important part of the operation. This cannot be effected with instruments. It may be done by dipping a piece of thick sole-leather or soft wood into some dissolving tooth-powder or liquid, and then rubbing the surfaces of the roots and crowns of the teeth with it, to be followed by the use of a soft brush. The dentist's care is now to be directed to the prevention of the re-accumulation of the tartar. Not only on this does a perfect cure almost entirely depend, but also the prevention of its recurrence. To effect this purpose, however, with satisfaction, is found quite an arduous task.

There is always much predisposition to form new tartar; and the difficulty of preventing it from settling on the teeth and fangs, is augmented by the great irritability and tenderness of the gums, the debilitated state of the periosteum, and the inflammation in the alveola.

The frequent repetition of scaling the teeth with instruments, cannot prove a substitute for not keeping them clean. It has on the contrary a tendency to maintain great irritation; and the benefit derived in this way, without proper care afterwards, can only be temporary.

Mechanical means alone are, for the most part, either insufficient or too violent, and powerful chemical means are apt to produce such diseases of the teeth, as will destroy them in another way. The only method, therefore, which remains, is to use these means combinedly, by which the bad effects may be avoided, and the advantages of both obtained. The rule to guide us in applying these remedies, is, the further the disease is advanced, the more the chemical agency is indicated, and the less is mechanical power to be applied; and conversely.

Having scaled the tartar from the teeth with instruments, I adopt the following plan. I request the patient to brush his teeth in the morning, and after every meal, with an astringent powder, possessing a sufficiently dissolving power upon the

tartar, and with a brush not so hard as to create much pain. After this process has been continued for about four weeks, and the accumulation of tartar found to be diminished, I direct the powder to be used in the morning and evening only, and the brush and water after every meal. The brush should neither be too hard nor too soft, and so formed as to clean the spaces between the teeth, and to give that mechanical stimulus to the gums which is so highly beneficial.

The internal gums are considerably harder and less irritable than the external, a fact which has not been noticed, at least as far as my observation extends, by any writer.

Tartar accumulates much more rapidly upon the inner, than on the external side of the teeth, and hence a different brush for each surface is required. That for the internal side should be made of the best hog's bristles, and cut from five-eighths to three-quarters of an inch in length: while that for the external, is to be made of the best loose hair, and cut about half an inch long at the commencement; and as the disease decreases, it may be used a little shorter and harder.

The patient should be directed to press as hard with the brush as he can bear against the gums and teeth, so that its bristles may insinuate themselves into the spaces of the teeth, and between the edges of the gums and the roots of the teeth. The pressure of the brush is to be applied in the direction from the grinding surface of the teeth towards their roots, so that the mucus which adheres to the roots under the edges of the gums, may be completely detached.

The mode of brushing the teeth which I direct to be adopted, is entirely the reverse of that recommended by every writer on the subject whom I have consulted. They all advise, that the brush should be applied from the gums towards the teeth, the consequence of which is, that the tartar remains fixed close to the alveolar processes, and that some mucus is pressed into the spaces at each brushing. The intention they have in advising the brush to be thus used, is to excite the gums to grow over the roots again: but so far from this being effected, much injury is sure to follow this practice. There is a natural tendency in the edges of the gums to get their proper place, provided every thing that can interfere with this effort be carefully and constantly removed.

By Mr. Hunter, very good effects are expected from scarifying the gums repeatedly — and Fox places still more reliance on the advantages of this operation. To me it has always appeared as affording only temporary relief, and to be of no real benefit in permanently arresting the progress of

the disease. It should, I think, be discarded, since, though palliative in its immediate tendencies, it will occasion delay in the use of a more effective treatment, and therefore must, in its ulterior consequences, be considered as absolutely pernicious. By the extraction of one tooth whose removal is indicated, we do more good than by fifty scarifications—and if the disease be not so far gone as to require the extraction of any teeth, the immediate removal of the tartar has the same effect. If there is any inflammation in the gums, the mere pressure of the instruments on them in scaling the teeth, must unavoidably occasion some bleeding, which, together with the removal of the exciting cause (the tartar), answers more directly and more permanently, than any scarifications for the removal of the inflammation.

The practice of fastening such teeth as are very loose, by ligatures, to their contiguous teeth, as recommended by Fox, is still more injurious, and should never be resorted to, even where a radical cure is no longer to be looked for.

Teeth which are fit for preservation, will grow again by restoring the tone of their periosteum and the other surrounding parts—and this is to be effected by the remedies already indicated. The ligature not only prevents the loose teeth from growing firm again, but also tends to loosen those to which it is attached, for the following reasons. The gold wire, however thin and pure, has not sufficient flexibility to permit the loose teeth to grow in their natural situation, or to be applied without some irritating pressure on the gums and adjacent teeth. The ligature made of silk has the inconvenience that it will contract when it becomes wet with the saliva, and thereby impose a constant straining upon the teeth.

The operations which are necessary to be performed on decayed teeth, such as plugging, filing, or cutting out carious parts, must be deferred until the parts have acquired health and vigour to support the irritation which they cause*. Artificial teeth should if possible be avoided, and only made use of under imperious necessity, and prepared with the greatest care and accuracy, in order to prevent any injurious mechanical influence upon the gums and those teeth which come in contact with them.

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* I have always delayed such operations for at least three months. An attempt too early to perform them, may not only bring on a relapse of the disease, but would probably prevent the successful results of the operation.

MANCHESTER MEDICAL SOCIETY

PART V.

MEDICAL AND PHYSICAL INTELLIGENCE.

MEMOIR OF THE LATE DR. RIGBY.

On Saturday, Oct. 27th, died, at his house in St. Giles's, Norwich, Edward Rigby, Esq., M.D., whose talents, character, and honours, claim from us a record, which, in common with so large a circle of friends, connexions, and admirers, as it falls to the lot of very few men to possess, we lament was not postponed to a more distant date: for it may be said, in the language of Burke, that "he was a public creature; he had in himself a salient, living spring of generous and manly action;" and the longer (as it seems to human apprehension) life had been indulged to him, the greater would have been the benefits that life would have enabled him to diffuse amongst his fellow-creatures—for USEFULNESS was the motive, path, and end of his existence.

Edward Rigby was born at Chowbent, in Lancashire, on the 27th of December, 1747; and was fortunate in being placed early under the care of Dr. Priestley, from whose example he derived that love of philosophical research which formed one of the leading characteristics of his powerful mind. At the age of fourteen, he came to Norwich, and was apprenticed to Mr. Martineau, an eminent Surgeon. At the expiration of his term of indenture, he completed in London the customary course of a medical education, and returned to Norwich, to exercise his profession.

While yet a very young man, his observation was strongly drawn towards some extraordinary facts that occurred in his midwifery practice; and he printed a treatise on the Uterine Hæmorrhage—a book which excited considerable attention; and though condemned by Dr. Denman, then at the head of that particular branch of science, has stood the test of time, has passed through five editions, has been translated into French and German, and is now in universal estimation amongst medical men.

Mr. Rigby was gifted by nature with a fine person, and an amenity of disposition and manners, which, aiding his acute intellect, unwearied assiduity, and extensive knowledge and skill, soon lifted him into the first rank of practice: and while his services were sought by the opulent and the middle orders of society, his kindness of heart, and his earnest desire of assisting his fellow-creatures and promoting his own acquirements, led him into the hovels of the poor, whensoever he was solicited. It was in his nature to bring his whole mind into action upon all occasions; and thus, while he visited in his professional capacity, his cheerfulness, his powers of conversation, and his universal desire of imparting the knowledge he possessed, rendered him as delightful as a companion, as respected for his skill. Amongst the poor he was almost as often their benefactor as their Physician.—Thus experience early matured a judgment not less strong by nature, than conversant with the theory and in the literature of his art.

The same benevolent dispositions, and the same ardour in his pursuits, led him to turn a portion of his little leisure towards political economy, and he studied deeply and attentively the interests and the management of the poor. The workhouse of his own city became an object of earnest

consideration; and he was led to believe that a great saving might be made in the consumption and distribution of the provisions and clothing, together with an increase of the comforts of its unfortunate inhabitants. In 1783 he became a member of the Court of Guardians; and he immediately suggested the propriety of inquiry, which he supported by a detail of certain facts that had reached him. The Court, however, negatived his first motions. He nevertheless repeated them, till at length his perseverance obtained the desired end; a committee was appointed, and the regulations he suggested were adopted. All this, however, was not effected without much obloquy, particularly from those whom it was Mr. Rigby's principal desire to benefit. The populace even rose into serious riot when the regulations were first acted upon. But in a pamphlet which he published in 1788, containing the reports of the committee and the details of account, he triumphantly proved the advantages derived from his system, and showed that a saving of between *two and three thousand pounds per annum* had accrued to the city, while the diet of the poor had been improved. The only public notice this singular and valuable service attracted, was the presentation of a piece of plate, which was the donation of a few private persons, who entered into a subscription for that purpose.

Mr. Rigby's next publications were, " A Plan for the Charitable Inoculation of the Poor," and " An Essay on the Red Peruvian Bark." Thus we see that one of his favourite objects, because one of the most important to human life, was the prevention of the ravages of that dreadful malady, the small-pox.—We shall have occasion to notice hereafter the activity of the same benevolent principle.

About the same time, the attention of philosophers was strongly turned towards the cause of animal heat; and in 1785 he printed a pamphlet, in which he started a very ingenious theory, and applied it to the treatment of cutaneous disorders, inflammations, and some other diseases. And although the chemical discoveries of Black, Crauford, and others, afterwards established a more certain hypothesis, this work exhibits strong marks of the author's ability and medical judgment; for he therein recommends the application of refrigerants to the skin in inflammatory diseases: and the present doctrine of cold affusion, as introduced by Dr. Currie, differs little from the treatment proposed by Mr. Rigby. It is also especially worthy of remark, that the expedients so successfully adopted by his relative, Captain Parry, to preserve the men from scurvy during his recent voyage, as related in that officer's journal, accord exactly with the recommendations in the " Essay on Animal Heat." In the same year (1785) Mr. Rigby recorded the facts attending Mr. James Deeker's two ascents in a balloon from Norwich, and produced a little work on Sugar. In 1786 he projected and established the Norfolk Benevolent Medical Society, by which a fund was instituted, to aid and support the widows and orphans of medical men who might be left in distress. This society still exists; its means have been augmented by several legacies and donations; and it has been the instrument of cheering the dark days of respectable age, as well as of assisting the families of several worthy members of the Profession.

It happened also to Mr. Rigby to render a far more important service to Norwich than its inhabitants are at all aware of. During a visit to his native county, his kindness of heart led him to call upon his nurse, whom he found employed as a weaver, and using *the flying shuttle*. He immediately saw the immense superiority of this instrument over that thrown by the hand; he caused one to be purchased, and brought it to Norwich. On his arrival, he introduced the subject to Mr. Maltby, who treated his application as an impertinent interference. Mr. Rigby then applied to Mr. Patteson, who instantly discovered the benefit, and erected a loom for its employment, thus giving effect to Mr. Rigby's design. Since that time

Norwich can best tell how much it has been benefited by the introduction of the flying shuttle into its manufactories. In 1788 he broke for a short time from his numerous engagements, and visited France, a part of Italy, and Switzerland, in company with W. Morgan, Esq., the celebrated calculator, and actuary of the Equitable Office, and another friend. It so happened, that they reached Paris just at the explosion of the revolution. He was detained in that city a week, during which the attack of the Bastile and the massacre of the Thuilleries took place. He became acquainted with Turgot, Roland, and other persons distinguished at that period; and he has written a very animated and interesting journal of the events, which remains among his unpublished papers.

In 1789 Mr. Rigby was admitted a member of the London Corporation of Surgeons, and of the London Medical Society.

With a mind thus constantly occupied in the contemplation and prosecution of public good, it may reasonably be imagined that Mr. Rigby had little desire for civic honours. In point of fact, he was rather averse to encounter duties so much at variance with professional habits. In 1802, however, he was solicited by many friends, who were anxious to uphold the respectability of the corporation, to become a candidate for the vacant gown. The hope of still further improving the economy of the workhouse, or rather of preventing the erection of a new building then in contemplation, was the grand motive which prevailed to induce him to accept office. He was elected in a very honourable manner, and in 1803 received the letter for sheriff, which office he served. In 1805 he succeeded to the mayoralty, and supported the chair with dignity and hospitality. In 1806 he was elected a fellow of the Linnean Society.

We must here retrograde a little in our narrative.—In 1802, we have stated, Mr. Rigby was elected an alderman. Soon after his appointment, he successfully opposed a plan for building a new workhouse, at an expense of £30,000, for which powers from Parliament had been previously obtained. He showed the inadequacy of the sum the guardians were authorized to raise by the Act; he exposed the errors of the workhouse system; and advocated to conviction the superior advantages of out-door allowances, both as respected pecuniary savings, and the morals, the comforts, and happiness of the poor. Committees were appointed to ascertain the facts; and the result was a report, which stated, that by the system of out-door allowances the expense per head was 12¼d., whereas the cost of maintenance in the house amounted to 3s. 6d. per head. Of the meagre and evasive notices of this report, however, Mr. Rigby complained heavily and justly. The result was the alteration of St. Andrew's Workhouse, in lieu of erecting a new one, by which an immense saving was made to the city.

Mr. Rigby next turned his attention to the article of provision, and to the improvement of the medical treatment of the poor, and particularly to a system for preventing contagion and the spread of the small-pox. Committees were appointed for both objects. Of the eight clauses in the report delivered by the medical committee, it came soon to be a matter of regret that three only were acted upon.

The report of the provision committee (drawn by Alderman John Browne) exposed considerable differences between the sums paid for bread, butter, and meat, and the quantities apparently consumed. A division in the duties of management in consequence took place, and a committee to superintend the in-door arrangements was specially appointed.

During the year of Mr. Rigby's mayoralty, the philanthropic Mr. Neild visited Norwich; and published in the Gentleman's Magazine a report concerning what he saw in the workhouse, which was very disgraceful to the discipline there established. This occasioned much literary contro-

versy. In the same year the small-pox raged in Norwich, when the Mayor called a public meeting, to combine the general aid in checking its progress. In 1807, 1808, and 1809, its ravages swept off two hundred and three persons, and the appalling numbers of this mortality were recorded and preserved by a regulation adopted during Mr. Rigby's mayoralty, and this regulation has had no small effect in convincing the public mind of the necessity of preventive measures. Had the proposal for insulating such casual patients as fell under the disease been acted upon, there are strong grounds for believing this calamitous amount of death might have been wholly precluded.

In 1812, Mr. Rigby learned that the disease had again appeared in the neighbourhood; and at his suggestion a general vaccination was adopted with great effect. Of all these matters he published a general account in 1812, together with a report drawn by himself of the pauper vaccination.

The natural desire of gradually retiring from the incessant and constantly increasing labours of a most laborious and responsible profession, induced Mr. Rigby to think of taking the degree of Doctor of Medicine, and henceforth of practising as a Physician. He, therefore, took his diploma in 1814. But in order to remove the delicate anxiety of females whom he had hitherto attended, he consented in many instances to continue his services to his old patients, while they were needed in one department; thus demonstrating the same kind attention to the feelings of his connexions, for which his life has been remarkable.

But though he thus retreated from the incessant calls upon his time, under which neither his health nor strength of body or mind, uncommon as they were, could have borne up, he never for a single moment abandoned the search after useful knowledge, which formed the assiduous, never-ceasing occupation of his entire thoughts. Change of employment was to him sufficient relaxation. Agriculture had long been a favorite subject of his regard. He had for years become the cultivator of his own estate, at Framingham, near Norwich, where he had planted extensively.—The enclosure of Poringland Heath enabled him to add to his landed possessions; and that once barren and dreary waste now smiles with his ornamental plantations and rich fertilization. In 1818 he published "Suggestions for an improved and extended cultivation of Mangel Wurzel." He has since printed an account of Mr. Coke's services to the agricultural world, under the title of "Holkham and its Agriculture," which has met uncommon success, having gone through three large editions in about as many years, although reprinted entire in "The Pamphleteer." This work has also been translated and printed in France, by a French agriculturist. He has since translated and published the travels of Mr. Chateauvieux, on account of the facts relating to the Agriculture of Italy there narrated; and, finally, has given the practical application of the Holkham system to smaller establishments, in his account of "Framingham and its Agriculture," printed last year.

Up to the hour of his last illness, he was employed in a sixth edition of his greatest work, "The Essay on the Uterine Hæmorrhage."

The reputation of his writings on agriculture caused him to be elected an honorary member of the Philadelphia Society for promoting that science; and he was also of the Horticultural Society of London.

In addition to the honours we have recorded, he was presented with the freedom of the city previous to his election as Alderman; he had been Surgeon, and was till his death a Physician to the Norfolk and Norwich Hospital and to the Lunatic Asylum, President of the Philosophical Society, a Director of the Norwich Fire Office, an honorary member of the Society of Artists, and a member of several public Committees, to the duties of all which he seldom failed strictly to attend.

Thus scarcely a year has passed without being marked by some act of public advantage, emanating from his powerful and useful mind. Yet strange

to say, (we blush while we record the fact) the eminent and valuable public services of this actively-good man have been recognised by no public acknowledgment; and while the walls of our ancient hall of magistracy glare with the portraits of not a few men distinguished principally for their attachment to the rage of party, there exists no trace of the public gratitude to one who so largely contributed to the universal benefit of his wealthier and of his poorer fellow-citizens. We cite this as one amongst many striking proofs of the prevalence of party over the public cause. Dr. Rigby was a consistent Whig, but has neither cared for nor encouraged "the two-penny politics" of the place. His large and noble and elevated services to humanity were therefore not observed by those whose grovelling researches were directed only towards the insect-breeding ordure of paltry partizan triumphs.

In private life, Dr. Rigby's purse was ever open to the wants of worthy claimants, and we have reason to know that his charity and his friendship were always unostentatiously extended to those who needed his aid. He was placid, though energetic and affectionate in his manners; but his attention to domestic ties was necessarily much interrupted and abstracted by public and professional duties, as well as by the constant habit of intellectual employment, from which he never relaxed for a single moment. His general attainments in literature and science were highly respectable; and his principal pleasure was the visit to Framingham, five miles from Norwich, which he made almost daily in the afternoon, returning in the evening to be in readiness to attend any calls that might be made upon him.

His personal habits were simple, frugal, and abstemious: he rose very early, drank no wine, and enjoyed, till within a few days of his death, an almost uninterrupted series of health and vigour. Even so late as ten days before his decease, he performed a journey of sixty miles, after visiting his Norwich patients, in one day, although just relieved from a state of considerable muscular pain, under which he had been suffering for some weeks. In fact, his mind never yielded; he was enthusiastic in the pursuit of good, and unwearied in its exercise.

Dr. Rigby was twice married—first, to Sarah, co-heiress of John Dyball, Esq.; and, secondly, to Anne, daughter of W. Palgrave, Esq. He has left issue two daughters by the first, and two sons and six daughters by the second lady, who has borne him twelve children. Already his progeny has arrived at the fourth generation. He died in his 74th year.

Our readers will require no apology from us for this protracted recital of the events of Dr. Rigby's long and meritorious life: for never, we will venture to assert, has any citizen of Norwich deserved or enjoyed a more extended regard than this excellent, this revered man.

THE LATE MR. WILSON.

In announcing the death of this distinguished Anatomist, it may be gratifying to the friends of that gentleman, and to the Profession at large, if we give an account, as nearly as we could collect, of the substance of the address which his colleague, Mr. Charles Bell, delivered to his pupils, on the first occasion of his meeting them after the event.

Gentlemen,—I can plainly perceive, you feel with me that we have a melancholy duty to perform, to which every thing must give place.—I have of late lost relations and friends; and have become familiar with that unhappiness, and those regrets, that assail us on the death of a relation or associate, when the anxious and feverish cares of life are suddenly terminated.

Mr. Wilson was a native of Ayrshire, in Scotland; and came to town when very young, under the protection of the late Mr. Cruikshanks. Mr. Cruikshanks was for some time the librarian, then the assistant of

Dr. Hunter; and at length, with Dr. Baillie, succeeded to this school. On the death of Mr. Cruikshanks, Mr. Wilson became assistant lecturer with Dr. Baillie; and finally, by the most liberal conduct of Dr. Baillie, Mr. Wilson became teacher and proprietor.

In 1812, Mr. Wilson, with the approval of all who took an interest in this school, came to me. On the third offer, and after some modifications of the original proposal, I purchased his interest.

With the exception of some technical difficulties on the part of my law advisers, we conducted these lectures with perfect harmony for nine years: and it is a great comfort to me to reflect on the last words of my colleague to me, that I had been ever accommodating to him, to the utmost of my power; nor do I think that on any occasion he experienced the slightest uneasiness on my account.

Owing to our original agreement, for some years past, a very small proportion of the fees of these lectures fell to my colleague's part. You are witnesses how little this affected the harmony betwixt us. It never was a matter of consideration to us, who received the new pupils on subscribing to those courses of lectures.

With regard to the conduct of the course, he was always ready to accommodate me; and it was the rule of my conduct to let my colleague take whatever parts of the course were most agreeable for him to deliver. As we joined on an understanding of perfect equality, these mutual concessions were necessary for the continuance of harmony where the best-tempered men have failed to agree.

In speaking of my late colleague's character for science and a knowledge of anatomy, it is a consolation to me, that I have only to repeat what I delivered before you while he was yet with us, which he heard through some of you, and which gratified him: I say, it is a satisfaction to be able to use the same words of praise while our friend lives, as after his death. It proves that we do not see through the magnifying influence of a recent loss, nor allow ourselves to be affected by vain regrets. He was, what few are, early and regularly taught anatomy,—had the best teachers in his youth, and a correspondence with the first men while he lived. As I said to you on a former occasion, there descended through him, by a regular succession of pupilage, those views of the anatomy, that accuracy and minuteness of knowledge, and those methods of teaching, which had characterized the Hunters, and those who immediately succeeded them,—and to whom this country owes what credit it has obtained for a knowledge of the human structure.

You can testify, Gentlemen, the precision and minuteness of his demonstrations, and the rigid manner in which he performed his duty to *you*, exacting attention to the last minute of that time which ought to be given to the lecture, and never permitting his endeavours to relax when your interests were concerned.

His discoveries did not embrace any great system: but, what was of more advantage, they extended to every department of the demonstrations of the anatomy: and this is particularly evinced in the collection of anatomical preparations which he made, and which is still before you.

He was Professor of Anatomy to the College of Surgeons; and there, where the College have drawn together the most eminent to grace their Institution, he was distinguished by the propriety of his manner, suiting his own character and the place; but not in manner only was he distinguished as a Professor, but in method and matter also.

My colleague was a man of great good nature, in the best sense of the word. He had no envy or repining at the success of others; and many whom he had taught, and whom he had assisted in early life, knew better than he did, by what means fortune was to be attained.

He had his full share of the harassments of a professional life. It was in the country, and retired with his family, in his little, simple, rural cottage — that his friends, and especially those younger friends, some of whom I address, will most love to remember him. There his cheerfulness and hospitality, with a manner kind, attentive, and without ostentation, exhibited the goodness of his heart; while his willingness to promote and to partake of every youthful gratification evinced the simplicity of it.

No man had warmer friends; and this is the best praise a man can have — warm and steady friends through life: — the names of Dr. Baillie, Mr. Cline, and Mr. Abernethy, among these, are sufficient eulogy of my departed colleague.

He has left a son, who has been remarkable in every situation from early youth, where scholarship, taste, and correct conduct could give distinction: just entering life, he has sustained the heaviest loss any man can suffer; but fortunate in this, that his family can look forward with confidence to him as their comfort and support.

The last time you saw Mr. Wilson in this place, he complained to me of his head, and pointed to a particular spot; the frequent return of this pain he attributed to the severe shock he had received on his carriage breaking down some time ago.

On Thursday morning he had complained of being unwell — he felt his hand unsteady, but he breakfasted, shaved, and had sat down to write a letter to a patient, when he felt himself taken exceedingly unwell; he rose, rung the bell, and sent for his son, saying, he was very ill, but desiring that Mrs. Wilson and his daughters should not be alarmed.

Dr. Wilson called his house pupils to his assistance, and finding his illness still increasing, he sent for Dr. Baillie. In the mean time he was bled and cupped. On Dr. Baillie's arrival he was still capable of speaking, and laid his hand on his left breast, as the seat of his uneasiness. Dr. Baillie prescribed for him — a blister was put on the nape of his neck, and sinapisms to his feet.

In an hour Dr. Baillie returned, and other Physicians saw him; but he was sinking, and died at half past twelve.

On examination of the body, the heart and vessels were found unusually empty of blood, and a serous effusion had taken place on all the surfaces of the brain: — with the exception of some ossifications of the valves of the heart, all the viscera appeared natural.

TO THE EDITOR OF THE LONDON MEDICAL REPOSITORY.

Sir, — The letter from Chelmsford, inserted in your Journal for the last month, was referred to me by an eminent medical man in this neighbourhood, who knew that I was conversant with the subject. The author of that letter now requests, that you will correct two errors of the press, as he supposes them to be. The first is that where honourable is substituted for honorary; and the second is that in which a few words, added by way of postscript, are interwoven with the last paragraph.

It is difficult to conceive how such a diploma, issued to unqualified persons by such a man as Dr. Walker, who is neither qualified by law, nor by any supernatural gift, to issue any diploma, can reflect honour either on the giver or the receiver.

In my "Caution against Vaccine Swindlers and Impostors," published by Callow, in the year 1816, I related several instances of the ill effects of Dr. Walker's practice, and some in which it had proved fatal. Another instance I since communicated to the world, through the medium of your

Journal. It was partly for his malpractice, and partly for his misconduct in many other respects, that he was about to be expelled from the Royal Jennerian Society, and, after all his artful and wicked stratagems, was permitted to resign; yet now he has the arrogance to call himself the director of that society, and to inoculate, and issue his venal diplomas, in their name.

If he has not the fear of the Society for the Suppression of Mendicity before his eyes, let him beware of his old colleague, Mr. Murray, once secretary to the Royal Jennerian Society, now to the National Vaccine Establishment and the Constitutional Association. It is neither legal nor constitutional to obtain money under false pretences; and I am of opinion, that neither the talents of Mr. Murray, nor the funds of the Constitutional Association, can be better employed, than in the prosecution of vaccine swindlers and impostors.

The Ambubaiarum Collegia at Rome, like Dr. Walker's Vaccine Institution, was a college of beggars; but they were content with exercising their vocation, and never thought of issuing a diploma. The Mendicant Friars have never attempted so audacious an act; it was reserved for modern times. If Dr. Walker must imitate the universities of St. Andrew's and Aberdeen, let him, at least, for the sake of decency, have a certificate of qualification, as those universities have. If, like them, he is determined to "*grow rich by degrees*," let him also endeavour to grow wise and honest.

I am, Sir, with great respect,

Your obedient Servant,

JOHN RING.

P. S. A Vaccine Institution is about to be established at Chelmsford.

TO THE EDITORS OF THE LONDON MEDICAL REPOSITORY.

GENTLEMEN, — It was not my intention to have troubled you with any further remarks relative to the Society of Apothecaries; but Mr. Bacot's communication, in your last Number, renders it but an act of justice to my own character to request the insertion of this letter in your next.

Mr. Bacot first defends himself from the charge of *having said* that Howarth's poverty prevented his prosecution — a charge which, as it is the pure creation of his own fancy, I shall be excused from either supporting or abandoning. I have not made it; and yet I cannot say that I am particularly astonished at so very natural an idea as that he had said so, occurring to Mr. Bacot.

He next adverts to a conversation between himself and Mr. Kershaw; and with what sincerity Mr. K. might then "concur with him, as to the evidence not being sufficient," it is not for me to judge. I can only say, that on meeting Mr. K. in the street, on his return, (the only time he ever mentioned the subject previous to the publication of my paper,) his expressions were the most pointed and significant as to what he conceived to be the real cause of the proceedings being given up, viz. Howarth's poverty. As strengthening this opinion, he made some very judicious observations on Mr. Bacot's inquiries relative to H.'s circumstances, which, I see, *he has again alluded to in his letter to Mr. Bacot;* and added, that he expected to hear farther from Mr. B. He had received no farther explanation at the time I wrote; and Mr. B. must have seen, had not his mind's eye been wilfully blinded, that it was to this explanation I alluded, as I have spoken of the conversation between him and Mr. K. in my former paper.

So much for the "correctness" of my "remarks;"—now for my "insinuations." I trust their value *will* be "duly appreciated" by the Profession, as Mr. Bacot kindly prophesies.

I will let Mr. B. speak for himself. "But the gentlemen say that Howarth now visits and prescribes for patients; and if, in addition to doing this, he supplies medicines, I conceive that he comes under the denomination of an Apothecary, *and is liable to the penalty imposed by the Act.*"—Letter VI. If, therefore, I can prove that H. "visited," "prescribed," and "supplied medicines," the alleged motive becomes a contemptible subterfuge. Now, the evidence clearly says, that in cases 1, 2, 3, 4, 6, 7, 8, the patients were visited, and that in *all* the cases Howarth prescribed and supplied medicines. But then we are told that his practice consisted in selling quack medicines! Had this assertion not come from very high authority, Mr. Bacot, Secretary to the Worshipful Society of Apothecaries, I really should not have deemed it deserving of serious refutation. Is there one word, from beginning to end, of quack medicines, of patent medicines, or the medicines being stamped?—But I feel that I am combating a non-entity;—there is not the shadow of an argument against me. If Howarth be not acting as an Apothecary, there is not an Apothecary in the United Kingdom; and if the Act will not prevent his practice, I again ask, what kind of practice it will prevent?

I think I might here with great propriety take leave of Mr. Bacot; but as he may possibly deny the conclusions which appear to me inevitable, I beg his attention to the following questions:—

Mr. Bacot says, (letter to Mr. Kershaw,) that "such a motive," i. e. H.'s poverty, "never had for one moment influenced the Society, in any case laid before them." Then why inquire of Mr. Kershaw as to "Howarth's situation and circumstances in life?"—(Mr. K.'s letter to Mr. B.) And, above all, why ask if "*Stott's effects would cover the expenses?*"

In Letter XII. Mr. B. says, "I have submitted the case of Howarth to the committee of the Society; and now beg to say, that they are of opinion that proceedings should be instituted against him." In what respect does the evidence, as transmitted by Mr. K.'s clerk, differ from what Mr. B. had received when the committee pronounced this opinion?

If pecuniary considerations have no influence with the Society, as Mr. B. intimates, (letter to Mr. K.,) why did Mr. Bacot so condescendingly propose, that the expense of Stott's prosecution should be borne by private individuals; and add that most prudential and characteristic suggestion, that the proceeding should be by bond, that the Society might "be saved harmless*?"

Mr. Bacot says, (Letter VI.,) that the Society "are, in every case which admits of its being done, anxious to enforce the Act of Parliament;" and again, (letter to Mr. K.,) "The Society are most anxious to enforce the Act" in every case "fully supported by evidence." My last letter will form a tolerably severe comment on this declaration. "Stott's case *is* a proper one," Mr. B. himself says: then why is he not prosecuted? "Has he effects?" Mr. B. asks; and if this be a reason with Stott, why not with Howarth?

I have one question for the Society itself: What is the meaning of the permission (Letter IX.) given to rejected candidates to practise, on a "promise of coming up again?"—and how long does the permission

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* I find I am in an error respecting the emoluments of the Society. It was in two years that they received £3015. 12s. for examinations, and I supposed it was in one—no bad thing certainly, £1500. a year, and regularly increasing!

extend to? Does not this permission imply, not merely a neglect of duty, but an actual breach of the very Act by which the Society is constituted? Mr. A. B. is here practising medicine, surgery, and midwifery. He was rejected in January, 1820. Is his permission still in force, or has he passed since? And by what right or authority is this permission granted? There is not a syllable respecting it in the Act.

Howarth has removed to Manchester; and I was yesterday informed, that Warburton, the subject of the Stafford trial, is also in practice there; so that the terrors of the Apothecaries' Act are not altogether insupportable in this part of the world.

I do most sincerely rejoice that the examinations at Apothecaries' Hall are so much improved. Has there been a change of Examiners? for

"Ex quovis ligno Mercurius non fit."

I have the honour to be, Gentlemen, your obedient Servant,

A. WOOD.

TO THE EDITOR OF THE LONDON MEDICAL REPOSITORY.

Sir,—If, for the sake of persons afflicted with that direful disease the tic douloureux, you will so far favour me as to insert the following, it may be the means of encouraging those so afflicted to try the remedy which I have taken, with equal success.

In justice to Dr. Hutchinson, the following statement seems to claim a place in your useful Journal.

About the year 1798, being troubled with the toothach, I went to Darkin and Son, dentists, Whitechapel, to have a tooth extracted; but, unfortunately for me, the dentist broke the tooth, part remaining in the jaw, from which I suffered severe pain for the space of two years. From the information I have collected, and from my painful sufferings, I have no doubt that it brought on the tic douloureux. The pain returned at intervals of some months, so extremely violent, that it became almost unbearable.

For some years afterward I was entirely free from pain, until the latter part of the year 1817, when the prevailing distresses of British sailors, being very apparent, roused my attention and exertion in their behalf; being actively employed in business from morning until night. The midnight hour was employed in planning for their permanent good; and to this incessant application and anxiety for them, I ascribe the return of that horrible affliction, the tic douloureux. My first publication appeared in January, 1818; and the first paroxysm I felt in March following, continuing very irritable from that period until January, 1821, when a kind friend brought me Dr. Hutchinson's book on the Tic Douloureux. Having made proper inquiry respecting Dr. Hutchinson, and found him both respectable and skilful, I resolved to try his remedy; having just completed my third edition a few days before.

Being in great agony, I began, on the 26th of January, with one drachm twice a day; on the 10th of February, one drachm and a half twice a day; 24th, two drachms twice a day; 12th of April to the 15th, two drachms and one scruple; 16th to the 27th, one and two drachms alternately; 28th to the 30th, one dose only each day; 1st of May to the 14th, one and two doses alternately; 15th to the 17th, one dose; 18th, two doses; 19th, one dose; 20th, two doses; 21st to the 29th, one dose; 30th, none; 31st, one dose; 1st of June to the 10th, one dose every other day; 11th, one dose; 12th and 13th, none; 14th, one dose; 15th and 16th, none; 17th, one dose; 18th and 19th, none; 20th, one dose; 21st and 22d, none; 23d, one dose; 24th to the 26th, none. (The above doses were of two

drachms and one scruple each.) On the 27th of June I took one dose, of one drachm one scruple; 28th to the 1st of July, none; 2d, one dose; 3d to the 6th, none; 7th, one dose; 8th, none; 9th, one dose; 10th, one dose; 11th to the 16th, none; 17th, two doses; 18th to the 22d, none; 23d, one dose: this the last.

The ferri carbonas* I mixed up with honey, as an electuary; and I occasionally took opening pills, accompanied sometimes with Epsom salts and peppermint water. The recipe of the pills, and any information I can render farther, is much at the service of any one afflicted with the tic douloureux.

I am, Sir, your obedient Servant,

4, *Commercial Road, St. George's East,*
August 16, 1821.

JEFFERY DENNIS†.

A LIST OF PERSONS WHO HAVE OBTAINED CERTIFICATES OF THEIR FITNESS AND QUALIFICATIONS TO PRACTISE AS APOTHECARIES, AND OF PERSONS WHO HAVE QUALIFIED THEMSELVES TO ACT AS ASSISTANTS, SINCE AUGUST 1, 1820.

*** Those who are marked thus *, are authorized to practise in London and ten Miles round.—Those who are marked thus ‡, are Members of the Worshipful Society of Apothecaries.

Adamson, John.
Allen, Charles, Dalton, Lancashire.
Allenson, John Hiram.
Anderson, Francis.
Andrews, Thomas.
Ashford, Mark, Honiton.
*Ashwell, Samuel, London.
Atkinson, William.

Baillie, Benjamin.
Bainbridge, John Nathan.
Bainbridge, Richard.
Baker, John Wright.
Banks, George, Clapham, Yorkshire.
Banks, William, Neston, Cheshire.
Barker, John, Coleshill, Warwickshire.
Bartlet, Henry Alexander, Ipswich.
*Bassett, John Frederick, Brixton, Surrey.
Bate, David.
Bateman, Robert.
Bell, William Everitt.
Berry, Charles.
Besemeres, William.
Bird, James.
Blick, Robert.
*Bond, Henry, Westminster Hospital.
Boulby, Mark.
Bowdage, Emanuel.
Bradley, Thomas, Catterick, Yorkshire.
Brayne, Henry Robert, Banbury.
Bristow, John Syer.
Brown, Robert, Preston, Lancashire.
Browning, Benjamin, Gosport, Hants.
Buckle, John, Thirsk, Yorkshire.
Buckley, William.
Burge, Frederick Adolphus.
Burrow, Thomas.

Cautley, Henry, York.
Cawley, John.
Chawner, Thomas.
Church, William John.
Churton, Joseph.
Clapp, William.
Clubb, Isaac, Manchester.
Coates, Amos.
Colby, William.
Cole, Thomas.
Coleby, John.
Cooper, Thomas, Bingley, Yorkshire.
*Cooper, Charles, London.
Davidson, Archibald Oliver.

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* The last I obtained was from Apothecaries' Hall.

† Author of "A Systematic Plan for bettering the Condition of Owners, Commanders, and Seamen, in the Merchant Service."

Davies, William.
Day, James.
*Dowler, Thomas, London.
Doughty, Robert.
Dyer, Thomas, Plymouth Dock.
Dyott, John Francis.

Eastcott, Richard Duke.
Edwards, Daniel.
Elliott, James Frederick.
Ellis, George Alfred.
Essex, Thomas Parr.
Evans, William Lewis, Cardiff.
Eves, Augustus, Coleford, Gloucestershire.

Fox, Thomas, Burslem, Staffordshire.
Fox, Douglas, Derby.
Fowler, Charles.
Francis, James Ougham.
Fullam, John Martinson, Hull.

Gaggs, Thomas.
*Gale, Gabriel Joseph, Newington Butts.
Gallup, Henry.
Gardom, George.
Gill, James, Skipton, Yorkshire.
Gill, William Seth.
Gillett, William Edward, Atterford, Somersetshire.
Goldsworthy, John.
Goldwyer, Henry, Bristol.
Goldwyer, William, Bristol.
Grant, Andrew.
Griffith, Walter.
Griffiths, John, Hereford.
Guy, John, Bristol.
Gwynn, Samuel, Salop.
Gwynn, Edward Wen, Shropshire.

Hainworth, Charles.
Hall, Robert, Durham.
Hall, William.
Hall, Thomas.
Halton, John Prince.
Hannah, John.
Harley, Francis.
Hardy, George Willmott, Manchester.
Harcourt, George.
Harris, Thomas.
Harris, Robert, Lancaster.
Harris, William.
Harrison, John, Chester.
Harrison, Thomas Charles.
Harrison, James Stockdale, Lancaster.
Harsant, Charles.
Hart, William, Dorking, Surrey.
Haward, Horace.
Hawes, Robert.
Hawkins, Robert.
Hay, William.
Hayes, Henry Barton, Hull.
Healey, Laurence.
Hepple, Francis Heaviside.
Hester, James Torry, Oxford.
Hettley, Henry Rishton, Bristol.
Hickes, John Cox, Berkeley, Gloucestershire.
Hiern, Charles Henry.
*Hindle, John, London.
Hodgson, Robert.
Hodgson, Joseph William, Sunderland.
Holme, William.
Holmes, Joseph.
Hollway, James.
Holman, Herman Boerhaave.
Hooper, William Henry.
Hooper, Charles.
Hopkins, John.
Howard, James Walker, Leeds.
Howell, Thomas Lewis, Llanelly.
Hughes, Richard, Stafford.
Hughes, Thomas, Middlewick, Cheshire.
*Hunt, Thomas, Clapton, Middlesex.
Hunt, William.
Hunter, John Charles.
Hurst, Isaac.
Hurt, Samuel.
Huthwaite, Cornelius Francis.

*Iliff, William Tiffin, London.

Jackson, Thomas.
James, Benjamin.
Johnson, John Blencowe.
Johnson, Charles.
Johnson, John.

Kennett, Charles.
Keys, George.
Kilvert, John, Bath.
Kipling, Thomas.
Kirkbank, Stephen.
Kirtley, Martin.

Lambert, John Wallis, York.
Lang, Jeffery.
Ledsam, John Joshua, Birmingham.
Leigh, John.
Liddon, Henry.

Lillie, Charles.
Lister, Charles.
Llewellyn, Henry.
Loft, Thomas.
Long, William.
Love, John.
Lyddon, James.

Mainwaring, William.
Mangles, John, York.
Martin, Adam.
Masefield, William.
Mason, Robert.
Maurice, David Pierce, Marlborough.
May, George.
Mercer, Thomas, St. Helen's.
Messenger, William.
Mill, D. T. G., Bideford, Devon.
Mitchell, Samuel.
Mitchell, Joseph Thomas.
Moon, Robert Henry.
Moore, John, Darlington.
Moore, Charles.
Monk, Thomas, Preston.
Morgan, Nelson Smith, Henfield.
Morgan, William.
Morris, Trevor, Chepstowe.
Morris, William.
Mortimer, Benjamin, Bristol.
Muriel, Charles.
Myers, William.

Nelson, Horatio, Retford, Notts.
Nesham, William, Newcastle-upon-Tyne.
Newton, Charles.

Ollier, Henry, Manchester.
Ormond, David.
Osborne, John.
Overton, John.
Owen, Joshua John.

*Pace, William, London.
Parkinson, Edward Chandler.
Parry, William Lewis, Anglesea.
Penfold, Richard, Steyning.
Pennington, John.
Percival, William Jones.
Porter, William, Newcastle-upon-Tyne.
Preston, William Collinson, Newcastle-upon-Tyne.
Preston, Bernard.
Price, David.
Puddicombe, Elias Dunstanville.
Pullin, Edward Bingley.

‡Randall, Alfred Mayor.
*Read, Charles Robert, London.
Richardson, Thomas.
Richardson, John, Cartmel, Lancashire.
Rickard, John.
Rigby, John, Up-holland, Lancashire.
Robinson, Cuthbert, Stockton-upon-Tees.
Robinson, Henry.
Rooke, Benjamin Proctor.
Rouse, Richard Batten.
*Rutherford, James William, Brentford.
Rutter, William.
Rycroft, Perry Nelson.

Sales, Joseph, Sutton in Ashfield.
Sawyer, George, York.
Self, William, Mile End Road.
Seymour, John.
Shaw, George, Durham.
Sherland, Thomas, Yeovil, Somersetshire.
Silvester, Thomas Hookham.
Slade, Barlow.
*‡Smith, R. C. R., Chelsea.
Smith, John, Sleaford, Lincolnshire.
Smyth, Edward.
Spencer, John Hewes.
*Squibb, George James, London.
Stamp, John Sundius.
Stafford, William Whitmore.
Stabb, Thomas, Torquay, Devon.
Steart, Augustus William.
Stiles, Thomas.
Stokes, Thomas, Thornbury, Gloucestershire.
Stone, Nicholas, Mayfield, Sussex.
Stubbs, John, Walsal.
Sumpter, John.
Surtees, Robert.
Sutton, Richard.
*Syder, C. B. M., London.

Taylor, Thomas.
Thomas, Abraham, Halifax.
Thomson, Thomas, Sheffield.
Thompson, Robert.
Thurston, John, Norwich.
Tilsley, Horatio, Bridgewater.
Tolson, William, Leeds.
Tomlinson, William, Mellor, Derbyshire.
Tomlinson, John.
Tookey, John.
Tremnell, G. C., Canterbury.

Tucker, William.
Tully, Horatio Nelson.
Turton, George, Sheffield.
Twemlow, John, Northwick, Cheshire.

Waite, Thomas.
Walley, William.
Wake, Robert.
Walker, George.
Walmsley, Thomas.
*Wase, Benjamin, London.
Watkins, Joshua.
Webber, William.
Welch, John Goodwin.
*Welch, James Andrew, Shoreditch.
Westcott, Charles Stephen, Ringwood.
Wetherfield, John.
Whateley, John.
Wheeler, Joseph.
Wildsmith, William.
Wilkie, James, Newcastle-upon-Tyne.
Wilkins, Henry.
Williams, John.
Williams, Caleb, Scarborough.
Williams, Owen Glendower, Cowbridge, Glamorganshire.
Williams, Edmund.
Willis, William.
Willshire, Thomas Steele, Wetherfield, Essex.
Wilton, William, Gloucester.
Witt, Charles.
Worthington, William Collins, Dover.
Wright, James Farewell.
Wright, Thomas.
Wynne, Richard Lifton, Boxford, Suffolk.

Yarde, Thomas, Chudleigh, Devon.

THE SOCIETY OF PRACTICAL MEDICINE OF LONDON, INSTITUTED OCTOBER 24, 1821, FOR THE PURPOSE OF PROMOTING MEDICAL SCIENCE IN ALL ITS BRANCHES, FOUNDED ON PRACTICE, AND GENERALLY TO DIFFUSE SUCH KNOWLEDGE.

RULES AND BY-LAWS.

A PRESIDENT shall be elected annually, on the Wednesday evening previous to the 24th day of October. Members, of twelve months standing, shall be eligible to the chair, and may be proposed; when, if more than one are proposed, and such propositions be seconded, a ballot shall take place; but if only one person be nominated and seconded, he shall be considered duly elected, and take the chair at the subsequent meeting.

The president shall attend all the regular meetings of the Society, as appointed by these laws, precisely at eight o'clock, and in failure of doing so, or sending notice to the vice-president of his incapability to attend, at least one hour before the meeting takes place, he shall be fined, for every non-attendance, the sum of five shillings.

Dr. Parkinson was unanimously elected president for the ensuing year.

Four members of this Society shall be appointed vice-presidents, according to seniority in the secretary's list, who shall officiate in regular rotation at the quarterly dinners.

The vice-presidents shall attend all the regular meetings of the Society, and the senior vice-president present shall be ready to take the chair at eight o'clock precisely, in the absence of the president, and on failure thereof, unless due notice be sent to the secretary before seven o'clock on the evening of meeting, a fine of five shillings shall be imposed.

A treasurer shall be elected in the same manner as the president, on the Wednesday preceding the 24th of October in every year. He shall keep a general cash book, in which shall be entered the particulars of all monies that he may receive or pay on account of this Society, which he shall balance and lay before the auditors (to be hereafter appointed by the Society) with all vouchers, &c. once every quarter of the year. He shall pay no bills on account of this Society, but such as are examined and approved by the president at a public meeting, and countersigned by the secretary. He shall attend in his place at eight o'clock precisely every

evening of the meeting of this Society, and have there his cash book, in failure of which he shall be fined five shillings for every default, unless he sends notice to the secretary of his incapability to attend, and at the same time sends his cash book, at least one hour previous to the meeting.

A secretary shall be annually chosen from the members of this Society, who shall be obliged to take upon himself the duties of his office as hereunder-mentioned, and whose period of discharging such office shall be the same as that of the other officers. He shall take minutes of all proceedings; collect the ballots; inform members of their election, and attend all meetings of the Society. He shall also conduct all the correspondence for the domestic department, under the direction of the president and general meeting of members; and collect all fines, which he shall pay over to the treasurer once a month, and shall report the names of all absentees.

A librarian shall be elected annually, by ballot, on the same evening as the president and treasurer. He shall take charge of all books belonging to this Society, of which he shall keep a due account, and deliver them out as directed by the president and Society in general meeting assembled.

Stewards shall be appointed from the members by rotation, according to the numbers of the Society, who are to see that all the refreshments are duly provided, and that visitors are properly accommodated. The stewards shall serve the said office for twelve months.

All persons, after the formation of the Society, who may be desirous of being admitted, must be proposed by two members, who shall give the name, residence, and profession of the candidate. This proposition to be laid before the president, who will direct the secretary to read the same, and affix a copy in some public part of the room wherein the meetings are held, and on the third night after the nomination, such candidate shall be balloted for, and if approved by two-thirds of the members present, shall be considered duly elected.

Each member shall be allowed to introduce an unlimited number of visitors, first delivering their names in writing, with residence, profession, &c. to the president, who shall cause their names to be entered in a book, with the name of the member introducing them. The same person shall not be allowed to visit more than twice in the year, except that if present on any evening of a discussion, such visitor shall be allowed to visit every evening until that subject is disposed of, and he may take a part in such discussion: but no visitors can be admitted until the minutes of the last meeting be read and confirmed, nor when any of the private affairs of this Society are the subject of discussion.

The members shall meet every Wednesday evening, at eight o'clock precisely, at Mr. Wright's Lecture Room, Henrietta Street, Covent Garden, and on no account whatever shall the meeting be prolonged after half past ten o'clock.

A copy of all new works received shall be delivered to a member who may have turned his attention to that particular subject, for his critical remarks, which remarks shall be read at a subsequent meeting, and discussed by the Society at large, so that the opinions of all may be collected by the president, for the Quarterly Journal; and no member shall be allowed to speak twice on any one article, except to explain.

All subjects proposed for discussion must be delivered in writing to the president, who will appoint a time for the author to read the same, and a subsequent evening for the discussion thereof.

Medical or Surgical Practitioners residing in the country, or in foreign parts, may be elected honorary or corresponding members.

Corresponding members may submit cases of importance to the Society upon which they entertain any doubts, and have the opinion of the Society thereon.

In January will be published, the first Number of a volume, containing Original Communications, a Review of Medical publications, and the Transactions of the Society of Practical Medicine of London.

A METEOROLOGICAL TABLE,

From the 21st of OCTOBER to the 20th of NOVEMBER, 1821.

KEPT AT RICHMOND, YORKSHIRE.

D.	Barometer. Max.	Barometer. Min.	Therm. Max	Therm. Min.	Rain Gauge.	Winds.	Weather.
21	28 77	28 74	49	35		SW..S..	1 Sun..
22	28 92	28 84	51	39	02	SSE..	1 Show. & Sun..
23	29 03	28 98	52	34	22	SE..SW.	1 Sun.. 3 Rain... 4 Starl..
24	29 42	29 27	49	35		SW.. var.	1 Sun..
25	29 57	29 44	50	37	08	S.W.	13 Sun.. 2 Rain. 4 Starl...
26	29 62	29 58	52	43	01	SW.SE.	1 Sun.. 2 Show.
27	29 77	29 77	61	51		Variable.	1 Sun..
28	29 84	29 83	63	52		S.	1 Mist.. 2 Sun. 34 Cloud...
29	29 77	29 68	58	31		SSE.	1 Cloud.. 2 Sun....
30	29 55	29 42	50	36	06	SSE.	1 Sun.. 4 Rain.
31	29 41	29 33	53	43	02	SE.SW..	14 Cloud... 2 Sun.. & Sho.
1	29 30	29 23	55	50	09	S..SW....	1 Sun.. & Show.
2	29 25	29 15	57	45	53	SW....	1 Rain....
3	28 90	28 71	45	34	85	Variable.	1 Sun. 2 Cloud..34 Rain....
4	29 58	29 —	37	28	50	NW...	1 Snow.... 2 Sun..4 Moon....
5	29 81	29 74	41	52		WbN..	1 Sun... 4 Moon....
6	29 86	29 84	45	31		Variable.	1 Sun.. 3 Cloud...
7	29 80	29 80	43	32		S.SSE.	1 Sun.. 3 Cloud...
8	29 84	29 82	47	36		SE.	1 Cloud.. 2 Sun..
9	29 78	29 70	45	35		SE.	1 Sun..
10	29 58	29 41	48	36	05	SE.	1 Cloud... 4 Rain.
11	29 32	29 29	51	39	06	SE.SW.	1 Rain. 4 Moon... & Sho.
12	29 48	29 46	51	43		SW.S..	1 Sun..
13	29 30	29 27	51	44	12	SE.	1 Sun.. 2 Cloud... 4 Rain..
14	29 36	29 25	52	46	02	SW.	1 Sun.. 4 Rain.
15	28 93	28 86	58	47	48	S..SW...	1 Sun.. 3Cl... 4Sho....&M..
16	28 91	28 86	55	46	34	SW...	1 Sun.. & Show....
17	29 48	29 27	53	34		W.NW.	1 Sun..
18	29 73	29 56	44	29		NW.	1 Sun...
19	29 44	29 33	50	36		S.SW..	1 Cloud... 2 Sun..
20	29 23	29 16	54	34	17	SW....	13 Cloud... 2 Sun.. 4 Rain..

The quantity of rain during the month of October was 1 inch and 56-100ths.

Observations on Diseases at Richmond.

The disorders under treatment were, Abortio, Asthenia, Catarrhus, Cephalæa, Cynanche tonsillaris, Diarrhœa, Febris catarrhalis, Febris continua, Febris simplex, Hernia humoralis, Icterus, Impetigo, Obstipatio, Odontalgia, Ophthalmia, Pertussis, Scabies, and Urticaria.

THE METEOROLOGICAL JOURNAL,

From the 20th of OCTOBER to the 19th NOVEMBER, 1821,

By Messrs. HARRIS and Co.

Mathematical Instrument Makers, 50, *High Holborn.*

D.	Moon.	Rain.	Therm.	Barom.	De Luc's Hygrom.	Winds.		Atmo. Variation.		
20		,09	48 52 44	29 21 29 10	57 55	SW	SW	Clo.	Rain	Clo.
21		,17	46 49 44	29 21 29 18	54 56	W	SE	Fine	——	Rain
22			47 52 46	29 20 29 37	57 57	SW	SW	Clo.	Fine	——
23		,11	49 53 44	29 34 29 38	57 60	SSW	W	Clo.	Rain	Fine
24		,18	45 50 46	29 46 29 83	57 55	W	W	Fog.	Rain	Sho.
25		,10	49 52 45	29 90 30 00	53 55	W	WNW	Fog.	Rain	Clo.
26	☋		49 55 45	30 01 30 12	55 60	NW	W	Fog.	Clo.	——
27		,24	50 53 43	30 17 30 23	55 57	WSW	SW	Rain	——	——
28		,03	48 57 43	30 27 30 30	55 57	SW	SSW	Fine	——	Fog.
29			47 55 46	30 25 30 19	56 59	SE	SE	Fog.	——	——
30			49 58 47	30 12 30 05	60 57	SW	SSW	Fog.	Fine	Fog.
31		,04	48 60 46	30 00 30 00	59 56	SW	SW	Fog.	Clo.	Fine
1			50 64 47	30 00 29 96	60 55	WSW	W	Fog.	Fine	Clo.
2			50 63 46	29 90 29 85	59 57	SSW	WSW	Fine	——	Clo.
3	☾	,10	51 60 43	29 61 29 50	55 50	W var.	W var.	Clo.	Fine	Rain
4		,15	49 60 40	29 33 29 51	45 49	NW	NW	Fine	Rain	Fine
5			45 53 37	30 10 30 25	50 49	NW	NW	Clo.	Fine	——
6			41 47 39	30 29 30 33	50 53	W	W	Fog.	Fine	Fog.
7			45 52 37	30 28 30 21	50 51	SE	SSE	Fog.	Fine	Clo.
8			39 49 38	30 19 30 16	50 50	SE	SE	Clo.	Fine	——
9	☉		41 48 43	30 19 30 15	55 54	W	W	Clo.	Fine	Clo.
10			45 53 50	30 12 30 18	60 63	SE	SW	Fog.	——	——
11		,23	53 59 48	29 92 29 76	65 65	SSW	SW	Clo.	Rain	——
12		,09	52 58 50	29 87 30 04	63 60	SE	W	Clo.	Rain	Clo.
13		,18	53 60 50	30 00 29 72	65 67	S var.	SW	Fog.	Clo.	Rain
14		,13	53 59 51	29 77 29 81	63 65	SW	SSW	Fog.	Clo.	Rain
15		,18	55 59 50	29 73 29 53	64 65	SW	WSW	Clo.	Sho.	Rain
16	☽	,40	58 60 50	29 49 29 43	67 66	SW	SW	Clo.	Rain	Rain
17		,70	53 58 52	29 61 29 68	57 60	WSW	S	Fine	Clo.	Rain
18			50 49 50	29 93 30 13	58 58	NNE	ESE	Fine	——	——
19		,60	50 52 44	30 01 30 00	59 55	S	WSW	Fog.	Rain	Fine

The quantity of rain during the month of October was 2 inches and 23-100ths.

A REGISTER OF DISEASES

Between OCTOBER 20th and NOVEMBER 19th, 1821.

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Abortio	2		Hæmoptöe	9	
Abscessio	5		Hæmorrhois	5	
Amenorrhœa	2		Hemiplegia	4	
Amentia	2		Hepatalgia	3	
Anasarca	10		Hepatitis	5	1
Aphtha *lactentium*	2		Hernia	2	
Apoplexia	4	3	Herpes *Zoster*	3	
Ascites	4	1	—— *circinatus*	2	
Asthenia	3		Hydrocephalus	3	2
Asthma	23	5	Hydrothorax	2	2
Bronchitis *acuta*	1		Hysteria	4	
—— *chronica*	3		Icterus	8	
Bronchocele	1		Impetigo *figurata*	2	
Cancer	3	2	—— *sparsa*	1	
Cardialgia	3		—— *erysipel.*	1	
Catarrhus	57		Ischias	2	
Cephalalgia	15		Ischuria	1	
Cephalæa	2		Lepra	4	
Cholera	1		Leucorrhœa	4	
Colica	7		Lichen *simplex*	3	
—— *Pictonum*	1		Lithiasis	2	
Contractura	2		Mania	1	
Convulsio	7	2	Menorrhagia	6	
Cynanche *Tonsillaris*	10		Morbi Infantiles*	32	
—— *Parotidea*	2		—— Biliosi*	18	
Diabetes	2		Obstipatio	7	
Diarrhœa	17		Odontalgia	4	
Dolor *abdominis*	2		Ophthalmia	12	
—— *lateris*	5		Palpitatio	3	1
Dysenteria	3		Paralysis	7	1
Dyspepsia	31		Peripneumonia	7	
Dysuria	3		Peritonitis	16	
Eneuris	1		Pertussis	4	
Enteritis	4	1	Phlogosis	1	
Entrodynia	4		Phrenitis	1	
Epilepsia	2	1	Phthisis Pulmonalis	17	12
Epistaxis	3		Physconia	1	
Erysipelas	7	1	Pityriasis	2	
Erythema *lævé*	3		Pleuritis	14	
Exostosis	1		Pleurodyne	4	
Febris *Intermittent*	5		Pneumonia	20	4
—— *catarrhalis*	5		Podagra	3	
—— *Typhus mitior*	7		Porrigo *larvalis*	4	
—— *Typhus grav.*	2	1	—— *scutulata*	2	
—— *Synochus*	17		—— *favosa*	2	
—— *Remit. Infant.*	7		Prolapsus	1	
Fistula	1		Prurigo *mitis*	3	
Gastrodynia	14		—— *senilis*	4	
Gonorrhœa *pura*	13		Psoriasis *guttata*	1	
Hæmatemesis	3		Purpura *simplex*	1	

DISEASES.	Total.	Fatal.	DISEASES.	Total.	Fatal.
Pyrosis	6		Tetanus	1	
Rheuma *acutus*	20		Tic Douloureux	1	
—— *chronicus*	24		Tussis	2	
Rubeola	12		Vaccinia	13	
Scabies	43		Varicella	4	
Scarlatina *simplex*	8		Variola	3	1
—— *anginosa*	4		Vermes	4	
Scrofula	6		Vertigo	8	
Spasmi	1		Urticaria *febrilis*	2	
Splenitis	3				
Syphilis	9		Total of Cases	776	
Tabes Mesenterica	1		Total of Deaths	——	41

* *Morbi Infantiles* is meant to comprise those Disorders principally arising from dentition or indigestion, and which may be too trivial to enter under any distinct head; *Morbi Biliosi*, such Complaints as are popularly termed *bilious*, but cannot be accurately classed.

Observations on Prevailing Diseases.

The season has been marked by that kind of sickliness which might naturally be expected from the damp and very variable state of the weather. Bilious irregularities continue still frequent, and rheumatism is yet prevalent. The Reporter, too, has had occasion to observe the unusual frequency of those kinds of pains which might be vaguely registered in nosological lists under the general head of rheumatism, but the seat and essence of which would appear to be rather periosteal, if it may be so said, than muscular. One or two of these cases have seemed to be very beneficially influenced by large and repeated doses of the cinchona bark.

Quarterly Report of Prices of Substances *employed in* Pharmacy.

		s.	*d.*
Acaciæ Gummi elect.	lb.	4	0
Acidum Citricum		25	0
—— Benzoicum	unc.	4	9
—— Sulphuricum	P. lb.	0	8
—— Muriaticum		2	0
—— Nitricum		3	6
—— Aceticum	cong.	4	6
Alcohol	M. lb.	5	0
Æther sulphuricus		12	0
—— rectificatus		14	0
Aloes spicatæ extractum	lb.	6	8
—— vulgaris extractum		10	0
Althææ Radix exot.		1	8
Alumen		0	6
Ammoniæ Murias		2	0
—— Subcarbonas		2	9
Amygdalæ dulces		2	9
Ammoniacum (Gutt.)		7	9
—— (Lump.)		4	6
Anthemidis Flores		2	6
Antimonii oxydum		6	0
—— sulphuretum		1	0
Antimonium Tartarizatum		8	0
Arsenici Oxydum		2	6
Asafœtidæ Gummi-resina	lb.	6	6
Aurantii Cortex		5	0
Argenti Nitras	unc.	5	8
Balsamum Peruvianum	lb.	24	0
Balsamum Tolutanum	none	3	0

		s.	*d.*
Benzoinum elect.		8	6
Calamina præparata		0	6
Calumbæ Radix elect.		5	0
Cambogia		7	6
Camphora		6	0
Canellæ Cortex elect.		3	6
Cardamomi Semina	lb.	8	6
Cascarillæ Cortex elect.		2	6
Castoreum	unc.	4	0
Castor Russ.	oz.	20	0
Catechu Extractum	lb.	4	0
Cetaceum		3	8
Cera alba		4	0
—— flava		3	9
Cinchonæ cordifoliæ Cortex (yellow)		6	9
—— lancifoliæ Cortex (quilled)		10	0
—— oblongifoliæ Cortex (red)		12	0
Cinnamomi Cortex		15	0
Coccus (Coccinella)	unc.	2	6
Colocynthidis Pulpa	lb.	10	6
Copaiba		8	6
Colchici Radix (sic.)		6	0
Croci stigmata	unc.	5	0
Cupri sulphas	lb.	1	0
Cuprum ammoniatum		9	0
Cuspariæ Cortex		3	0
Confectio aromatica	lb.	9	0
—— Aurantiorum		3	0
—— Opii		4	6

		s.	d.
Confectio Rosæ caninæ	- -	1	8
—— Rosæ gallicæ	- -	2	3
—— Sennæ	- - -	2	0
Emplastrum Lyttæ	- - -	6	0
—— Hydrargyri	- -	3	6
Extractum Belladonnæ	- unc.	1	6
—— Cinchonæ	- - -	3	0
—— Cinchonæ resinosum	-	4	6
—— Colocynthidis	- -	3	6
—— Colocynthidis comp.	-	1	6
—— Conii	- - -	0	6
—— Elaterii	- -	30	0
—— Gentianæ	- - -	0	6
—— Glycyrrhizæ	- lb.	5	8
—— Hæmatoxyli	- unc.	0	6
—— Humuli	- - -	0	8
—— Hyoscyami	- -	1	0
—— Jalapæ	- 1*s.* 6*d.* Res.	3	9
—— Opii	- - -	5	3
—— Papaveris	- - -	0	9
—— Rhæi	- -	2	0
Extractum Sarsaparillæ		2	0
—— Taraxaci	- -	0	6
Ferri subcarbonas	- - lb.	1	6
— sulphas	- -	1	6
Ferrum ammoniatum	- -	5	4
— tartarizatum	- -	4	0
Galbani Gummi-resina.	- -	8	8
Gentianæ Radix elect.	- - -	1	6
Guaiaci resina	- - -	8	6
Hydrargyrum purificatum	- -	5	0
—— præcipitatum album	-	8	8
—— cum creta	- - -	4	6
Hydrargyri Oxymurias	- unc.	0	6
—— Submurias	- -	0	8
—— Nitrico-Oxydum	-	0	8
—— Oxydum Cinereum	-	1	6
—— Oxydum rubrum	- -	5	6
—— Sulphuretum nigrum	-	0	4
—— —— rubrum	-	0	6
Hellebori nigri Radix	lb.	2	4
Ipecacuanhæ Radix	- - -	16	0
—— Pulvis	- - -	18	0
Jalapæ Radix	- - -	5	6
—— Pulvis	- - - -	6	4
Kino	- - - - -	7	0
Liquor Plumbi subacetatis	P. lb.	1	6
— Ammoniæ	- - - 2 6	5	3
— Potassæ	- - - -	1	4
Linimentum Camphoræ comp.	-	5	6
—— saponis comp.	- -	3	6
Lichen	- - - -	1	2
Lyttæ	- - - - - lb.	12	0
Magnesia	- - - - -	10	0
Magnesiæ Carbonas	- -	3	0
—— Sulphas	- -	0	6
Manna	- - -	5	6
— communis	- -	3	0
Moschus pod, (28*s.*)	in gr. unc.	48	0
Mastiche	- - - lb.	7	6
Myristicæ Nuclei	- -	10	4
Myrrha	- - - -	8	0
Olibanum	- - -	3	8
Opopanacis gummi resina	-	23	0
Opium (Turkey)	- -	48	0
Oleum Æthereum	- oz.	2	6
— Amygdalarum	- lb.	3	6
— Anisi	- - - - unc.	1	8
— Anthemidis	- - -	5	0
— Cassiæ	- -	7	0
— Caryophilli	- -	5	0
— Cajuputi	- - -	4	6
— Carui	- - - -	1	6
— Juniperi Ang.	- - -	3	6
— Lavandulæ	- -	3	0
— Lini	- - cong.	6	6
— Menthæ piperitæ	unc.	4	0
— Menthæ viridis Ang.	- -	4	6
— Pimentæ	- - unc.	5	6
Oleum Ricini optim.	- -	6	6
— Rosmarini	- - unc.	0	9
— Succini 2*s.* 6*d.*	—— rect.	5	6
— Sulphuratum	- P. lb.	1	6
— Terebinthinæ	- - -	1	0
— — rectificatum	- -	2	0
Olivæ Oleum	- - cong.	14	0
Olivæ Oleum secundum	- -	10	0
Papaveris Capsulæ	- (per 100)	2	6
Plumbi subcarbonas	- - lb.	0	8
— Superacetas	- - -	2	0
— Oxydum semi-vitreum	-	0	6
Potassa Fusa	- - - unc.	0	8
— cum Calce	- - -	0	6
Potassæ Nitras	- - - lb.	1	2
— Acetas	- - - -	10	0
— Carbonas	- - -	3	6
— Subcarbonas	- -	1	0
— Sulphas	-	1	2
— Sulphuretum	- -	4	0
— Supersulphas	- -	1	2
Potasse Tartras	- - -	3	6
— Supertartras	- - -	1	4
Pilulæ Hydrargyri	- - unc.	0	6
Pulvis Antimonialis	- -	0	8
— Contrayervæ comp.	- -	0	4
— Tragacanthæ comp.	-	0	4
Resina Flava	- lb.	0	4
Rhæi Radix (Russia)	- - -	30	0
Rhæi Radix (East India) opt.	- -	10	6
Rosæ petala	- - -	10	0
Sapo (Spanish)	- -	2	8
Sarsaparillæ Radix (Lisbon)	-	6	6
Scammoniæ Gummi-Resina	- unc.	3	6
Scillæ Radix siccat. opt.	lb.	5	0
Senegæ Radix	- - -	3	6
Sennæ Folia	- - -	6	0
Serpentariæ Radix	- -	6	0
Simaroubæ Cortex	- -	4	0
Sodæ subboras	- - -	2	9
— Sulphas	- - -	0	6
— Carbonas	- -	6	0
— Subcarbonas	- - -	1	6
— — exsiccata	- -	5	0
Soda tartarizata	- -	2	4
Spongia usta	- - unc.	1	2
Spiritus Ammoniæ	- M. lb.	4	6
— —— aromaticus		4	6
— —— fœtidus	- -	5	0
— —— succinatus		5	6
Spiritus Cinnamomi	- - -	3	6
— Lavandulæ	- -	5	0
— Myristicæ	- - -	3	6
— Pimentæ	- -	3	
— Rosmarini	- -	4	0
— Ætheris Aromaticus	-	6	6
— — Nitrici	- -	5	6
— — Sulphurici	- -	6	0
— — Compositus	-	6	6
— Vini rectificatus	- cong.	30	0
Syrupus Papaveris	- - lb.	2	0
Sulphur Sublimatum	- -	1	0
— Lotum	- - -	1	6
— Præcipitatum	-	2	6
Tamarindi Pulpa opt.	- -	3	0
Terebinthina Vulgaris	-	0	10
—— Canadensis	-	6	0
—— Chia	-	10	8
Tinct. Ferri muriatis		5	0
Tragacantha Gummi	- - -	6	4
Valerianæ Radix	- - - -	1	4
Veratri Radix	- - -	2	6
Unguentum Hydrargyri fortius	-	5	0
—— —— Nitratis	-	3	6
—— Nitrico-oxydi	-	3	9
Uvæ Ursi Folia	- - -	2	6
Zinci Oxydum	- - -	7	6
— Sulphas purif.	- - -	3	6
Zingiberis Radix opt.	- - -	4	0

Prices of New Phials per Gross.——8 oz. 70*s.*—6 oz. 58*s.*—4 oz. 47*s.*—3 oz. 43*s.*—2 oz. and 1½ oz. 36*s.*—1 oz. 30*s.*—half oz. 24*s.*

Prices of second-hand Phials cleaned, and sorted.——8 oz. 46*s.*—6 oz. 44*s.*—4. oz. 33*s.* 3 oz. 30*s.*—2 oz. and all below this size, 25*s.*

NOTICE OF LECTURES.

Dr. Davis will commence a Course of his Lectures on the Theory and Practice of Midwifery, and on the Diseases of Women and Children, on Monday, the 3d of December.

LITERARY NOTICES.

Dr. Forbes has just ready for publication, in one volume, 8vo., A Translation of a Treatise on the Diseases of the Chest; in which they are described according to their Anatomical Characters, and their Diagnosis established on a New Principle, by means of Acoustic Instruments, with Plates. To which Dr. Forbes has added a Preface and Notes.

Dr. Philip has just ready a Second Edition of his Treatise on Indigestion, with some additional Observations.

Dr. J. C. Prichard has just ready for publication, A Treatise on Diseases of the Nervous System. Vol. I. Comprising Convulsive and Maniacal Affections. The design of this work is to illustrate, by numerous Cases of Epilepsy, Mania, Chorea, and the different Forms of Paralysis, the Connexion between Affections of this Class, and a variety of Disorders of the Natural Functions.

In the press, Arranged Catalogues of the Articles of Food, Drink, Seasoning, and Medicine. Third Edition, with Notes. By George Pearson, M. D., F. R. S., Senior Physician to St. George's Hospital, of the College of Physicians, &c. &c.

James Barlow, esq., Surgeon, Blackburn, has an octavo volume in the press, and which will appear in a few weeks, on select Subjects in Surgery and Midwifery.

A

MONTHLY CATALOGUE OF BOOKS.

A

The Miscellaneous Works of the late Robert Willan, M. D., &c. &c. By Ashby Smith, M. D. 8vo. Price 12s.

Observations on the Diseases of Females. By Charles Mansfield Clarke. Part II. Royal 8vo. Price 15s.

The Principles of Medicine, on the Plan of the Baconian Philosophy. Volume I. On Febrile and Inflammatory Diseases. By R. D. Hamilton. 8vo. Price 7s.

The Chemical Decompositions of the London Pharmacopœia. B Charles Mingay Syder. 18mo. Price 1s. 6d.

NOTICES TO CORRESPONDENTS.

Communications have been received from Dr. Smith and Mr. Parry.

*** *Communications are requested to be addressed (post paid) to* Messrs. T. and G. UNDERWOOD, 32, *Fleet Street.*

THE END OF THE SIXTEENTH VOLUME.

J. MOYES, GREVILLE STREET, LONDON.

INDEX

TO

THE SIXTEENTH VOLUME.

Abdomen, case of, wound in the 283
—, hæmorrhage in - - 332
Adams, Sir W., his claims investigated - - 166
Air, changes in, operate effects that are erroneously attributed to contagion - - 402
Alcock's opinions on bronchial inflammation, *Gregory* on - 1
Amaurosis, different species and theories of - - 58
—, *Kennedy* on - - 191
—, *Stevenson* on, reviewed - 410
merica, its medical character - 142
natomical studies, on the pursuit of, in the country - 204
natomy, morbid, hint respecting the mode of overcoming objections against - - 389
ncients, were they acquainted with the contagious diseases? 482
Andalusian fever, *O'Halloran* on, review of - - 471
Angina pectoris, *Reeder's* observations on - - - 301
Apoplexy, an account of a severe attack of - - 75
—, use of croton oil in a case of - - - - 451
Apothecaries, correspondence respecting the act of the - 152
—, vindicated against the charges of *Ignotus* - - 186

Bailey's case of preternatural labour - - - 453
Bark, an account of a new preparation of - - 447
Bartlett on retroversio uteri - 9
Books, Monthly Catalogue of Medical - 88, 176, 261, 351, 440, 528
—, Reviews of *Elliotson* and *Granville* on Prussic acid, 27. —*Travers*, *Vetch*, and *Weller*, on diseases of the eye, 43.— *Ramsbotham* on midwifery, 117.—*Philip* on indigestion, 126.—*Plumbe* on porrigo, 132.—*Smith* on forensic medicine, 211.—*Vandenzande* on puerperal fever, 234.—*Reid* on hypochondriasis, 203.—*Reeder* on diseases of the heart, 297.—Pamphlets on medical reform, 311.—*Hancock* on pestilence, 392.—*Stevenson* on amaurosis, 410. *Bichat* on mucous membranes, 462.—*O'Halloran* on the yellow fever of Andalusia, 471.—*Syder's* medical examinations, 481.—*Willan's* miscellaneous works, 482.—*Hare* on the stomach and alimentary organs, 491.
Bichat on mucous membranes, review of - - - 462
Brain, case of injury to - 15
—, softening of - - 337
Brawn on the Childers fever - 360
Broughton on the eighth pair of nerves - - - 253
Bronchial inflammation, is it the cause of death in small-pox? 1
Bronchocele, use of iodine in - 199
Brugnatelli on a new salifiable base - - - 434
Bull's case of strangulated femoral hernia - - 377

Calomel and opium, how useful in inflammatory affections of the peritonæum, &c. - 234
Cardiac diseases, their pathology obscure - - - 297
Carditis, *Reeder* on - - 298
Carotid aneurism, case of, cured by ligature - - 333
Catalogue, Monthly, of Medical Books - 88, 176, 261, 351, 440, 528

Cæsarean operation, *Barlow's* account of - - 101
Chapman, a lecturer on midwifery, account of - - 101
Childers fever, not contagious - 360
Coindet, his observations on iodine noticed - - 200
College of Physicians, their rights discussed - - 315
Colour of the blood, is it influenced through mucous membranes? - - 469
Compression and concussion of the brain not easily distinguished - - - - 17
Contraction of the flexor muscles, instrument for remedying - - - 103
Constipation, case of, relieved by spirit of turpentine - 206
Contagion, too abstractedly considered - - - 393
CORRESPONDENTS, notices to - 88, 176, 264, 352, 440, 528
Croton oil, *Perry* on - - 374

Dalton on spring and mineral waters - - - 493
Death in small-pox, how occasioned? - - - 1
—, sudden signs of - - 212
Deloudre on apoplexy - 75
Dennis, letter from - - 517
Digestion, how interfered with by the division of the eighth pair of nerves - - 63
DISEASES OF LONDON, MONTHLY REGISTER OF, with observations on prevailing affections - 86, 174, 258, 350, 438, 525.
Disqualifications, mental and physical, how to be detected 229
Dry cupping, its use in affections of the eye - - 414
Dyspepsia, *Philip* on, review of 126

Education of an apothecary, the kind of, discussed - - 186
Electricity, contribution to the history of - - - 325
Elliotson on Prussic acid, review of - - - - - 27
Empyema, case of, by *Dr. Robertson* - - - 110
Epidemic, bilious, *Gregory* on the, of 1821 - - 353
—, disorders, *Hancock* on review of - - - 392
Europe, small-pox prevalent in, according to *Willan*, prior to the supposed origin of the disease in Arabia - - 488
Examinations, medical, *Syder's* book of, reviewed - - 481
Eye, diseases of, review of books on - - - 43

Femoral hernia, case of strangulated one, attended with some uncommon circumstances - 377
Fever, account of one in the Childers ship - - 360
Fever and plague considered as merely different degrees of the same disorder - - 395
Fitch, notice from, on colchicum seeds - - 259
Forceps, long, *Ramsbotham's* account of - - - 123
Forensic medicine, *Smith* on, reviewed - - - 211
Fosbrooke on chronic affections of the peritonæum - - 177
Functional diseases do not always implicate structure - 265

Gamboge in large doses, account of the administration of - - - - 376
Gangrene, hospital, *Werneck* on - - - - 246
Glands of mucous membranes, *Bichat* on - - - 465
Golis on iodine - - 450
Gout, efficacy of colchicum seed wine in - - - 288
Granville on Prussic acid, review of - - - 27
Greening's report from the Lying-in Charity - - 82
Gregory on small-pox - 1, 104
—'s cases in medicine - 265
—, on the autumnal bilious epidemic of 1821 - - 353
Gums, devastation of - - 499
Gutta serena, *Stevenson* on, reviewed - - - 410

Halliday on iodine - - 199
Hancock on pestilence, review of - - - 392
Hare on the stomach, and alimentary organs, review of - 491
Harlan on animal heat - 418
Hastings on dividing the eighth pair of nerves - - 63

O'Halloran on the Andalusian fever, review of - - 471
Heart, diseases of, *Reeder* on, review of - - - 297
Heat, animal, essay on - - 418
Heineken's case of concussion and compression of the brain 15
Hepatic disorders and enteritic inflammation, how connected - - - 69
Hernia, strangulated femoral, case of - - - 377
Hickman on abscess of the spleen - - - 202
Higginbottom on anatomical studies in the country - 204
Home on the black rete mucosum - - - 243
—, reply to - - - 327
Hospital gangrene, *Werneck* on 246
Hulbert's case of wound in the abdomen - - - 289
Hydrocyanic acid, *Elliotson* and *Granville* on, reviewed - 29
Hypochondriasis, *Perry* on - 213

Ignotus on the medical profession, reply to - - 186
Indigestion, *Philip* on, review of - - - 126
Infanticide, *Smith* on - - 220
Infection, laws of - - 392
Inflammations of the bowels, how connected with hepatic disorder - - - 69
—, general, *Nicholl* on the theory of - - - 89
Injections, not sufficiently used in intestinal affections - 454
Iodine, use of, in bronchocele - 199
Iritis, *Travers* and other authors on - - - 56
Iron, carbonat of, its use in tic douloureux - - - 517

Journal, Quarterly, of Science, &c. extracts from - - 415

Kennedy on amaurosis, &c. - 191
—'s case of visceral inflammation - - - 380
Koecker on the devastation of the gums - - - 499

Labours, protracted, how to be managed - - - 120
Licentiates of the Apothecaries' company, list of - - 518
Life, love of, connected with suicidical desires - - 294
Ligature used in the cure of carotid aneurism - - 333
Lithotomy, deaths from, *Yelloly* on - - - 157
Livingstone's account of a lusus naturæ - - - 138
Lunar influence in disease, remarks on - - 461
Lusus naturæ, account of - 441

Mucous membranes, *Bichat* on, review of - - - 462
Metastasis in rheumatism, case of - - - 12
Meteorological Journal for London - 85, 173, 257, 349, 437, 524
—— for Richmond, in Yorkshire 84, 172, 256, 348, 436, 523
Midwifery, *Ramsbotham's* observations on, review of - 117
Mitchell's account of a lusus naturæ - - - 441
Morbid anatomy, method of overcoming objections against - - - 389
Morson on a new preparation of bark - - - 447
Merveilleux's case of sanguineous tumour - - 375

Natural History, Calendar of, 25, 115, 209, 292, 391, 460
Nervous diseases, *Reid* on, review of - - - 293
Nervous influence, not the source of animal heat - 423
Neumann on inflammation of the heart - - - - 343
Nicholl's cases of purpura hæmorrhagica - - 18
— on inflammation - - 89
Nitrate of silver, its use in medicine - - - - 433
Nerves, on the division of the eighth pair of - - 63
Notices to Correspondents 88, 176, 264, 352, 440, 528

Onslow's obstetrical researches, 99 271
Obstruction, in the bowels, case of, relieved by spirit of turpentine - - - 206
Oil of croton, its use in apoplexy 451

Ointments too much used in porriginous affections - 133
Opiates, very large doses of, objected to in uterine hæmorrhage - - - 119
Opium, new extract of, account of - - - 337

Palsy, *Gregory* on - - 265
Pathology, practical, *Kennedy's* cases in - - - 380
Peritoneal inflammation, *Fosbrooke* on - - - 177
Perry on hypochondriasis - 203
— on croton oil - - - 374
Pestilential disorders, *Hancock* on, review of - - 392
Pharmacy, list of substances used in, with their prices 260, 527
Philip Wilson, his experiments on the eighth pair of nerves 68, 415
— on indigestion, reviewed - 126
Philips on the analysis of verdigris - - - 77
Phthisis pulmonalis, two cases of - - - 20
Plethora, how produced - 94
Placenta, adhesions of, how to be treated - - - 118
— expulsion of, case of - 453
Plague, considered as only a fever of a malignant kind - 395
Plumbe on ring-worm - - 132
Poisons, account of the effects of - - - 214
Porrigo, *Plumbe* on, review of - 133
Portal on enteritic inflammation - - - 69
Prout on deaths from lithotomy 78
Puerperal fever, *Vandenzande* on - - - - - 234
Purpura hæmorrhagica, cases of 18

Quarantine, objections against 392
Quarterly Journal of Science, &c. extracts from - - 415
Questions, prize, medical ones 255

Ramsbotham's observations on midwifery, reviewed - - 117
Reform in medicine, in what ought it to consist? - 311
Reid on hypochondriasis, reviewed - - - 293
Rete mucosum, *Home* on - 243
Retroversion of the uterus, case of - - - - 9
Reviews of *Elliotson* and *Granville* on Prussic acid, 27. —*Travers*, *Vetch*, and *Weller* on diseases of the eye, 43.—*Ramsbotham's* observations on midwifery, 117.—*Philip* on indigestion, 126.—*Plumbe* on ring-worm, 132.—*Smith* on forensic medicine, 211.—*Vandenzande* on peritonitis and puerperal fever, 234.—*Reid* on hypochondriasis, 293.—*Reeder* on diseases of the heart, 297.—Pamphlets on medical reform, 311.—*Hancock* on pestilence, 392.—*Stevenson* on amaurosis, 410.—*Bichat* on mucous membranes, 462.—*O'Halloran* on the yellow fever of Andalusia, 471. — *Syder's* medical examinations, 481.—*Willan's* miscellaneous works, 482.—*Hare* on the stomach and alimentary organs, 491.
Rheumatism, metastasis, case of 12
Ring, letter from, in reference to *Dr. Walker* - - 428
Ring-worm, *Plumbe* on, review of - - - 132
Rigby, memoir of - - 508
Robertson's case of empyema 110
Rye, ergot of, disputes respecting the first notices of it - 122

Salifiable base, *Brugnatelli* on a new one - - 434
Sausages, smoked, poison from- 249
Secretion in a certain way, the cause of animal heat - - 42
Senna, in what does its active principle exist? - - 254
Silver, nitrate of, its use in medicine - - - 433
Small-pox, *Gregory* on - 1
—, *Willan's* statement of the first accounts of - - 483
Smith on forensic medicine, review of - - - 211
Spleen, case of abscess in, communicating with the stomach and umbilicus - - 202
Stokes, on obstructions in the small intestines - - 454
Stevenson on amaurosis - 410
Suicide, observations on - 294
Survivorship, questions respecting, how to be solved - 226

Sutleffe's cases and observations 456
Syder's medical examinations, review of - - - 481
Sympathy of mucous membranes, *Bichat* on - - - 469

Tedium vitæ, an attempted explanation of - - 294
Teeth, economy of, *Hare* on the - - - 492
Temperature, animal, American paper on the cause of - 418
Tetanus, *Wansbrough's* case of 277
Thomson's case of metastatic rheumatism - - 12
— on gamboge - - 376
Travers on diseases of the eye, review of - - - 43
Tubercular formation, *Baron's* views respecting, adverted to 180
Tumour, case of a sanguineous one - - - 375
Turpentine, spirits of, its use in a case of constipation - - 206

Uterus, retroversion, case of - 9

Vaccination, report respecting - 79
—, *Fosbrooke* on - - 82
Vandenzande on peritonitis and puerperal fever reviewed - 234
Variola, evidences of its antiquity - - - 487
Venesection, why objectionable in puerperal fever - - 234
—, in apoplexy, considered - 457
Verdigris, analysis of - - 77
Vetch on diseases of the eye, review of - - 43
Visceral inflammation, *Kennedy's* case of - - - 380
Volition, *Reid* on the power of 296

Wansbrough's case of phthisis pulmonalis - - - 20
— tetanus - - - 277
Waters, *Dalton's* account of, tending to facilitate their analysis - - - 493
Weller on diseases of the eye, review of - - - 43
Werneck on hospital gangrene - 246
Williams on obstinate constipation of the bowels - - 206
Willan's miscellaneous works, review of - - - 482
Wilson, memoir of - - 512
Wood, letter from, to the editor 430, 515
Wounds, death from - - 219
— phosphorescence of - - 434

Yelloly on deaths from lithotomy 151
Yellow fever, *O'Halloran* on, review of - - - 471